POPULAR PHOTOGRAPHY

BREAK THE LAWS OF NATURE PHOTOGRAPHY
10 NEW WAYS TO SHOOT P.60

HOW TO MAKE GREAT PICTURES

CANON OR NIKON

Which DSLR is Best for You?

EOS 5D Mark III or D800?
Better Noise Control vs.
More Resolution
FULL TESTS P.73

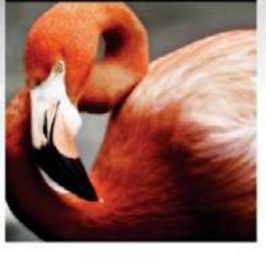
▸ **HOME STUDIO SETUPS**
Outfit Any Space for Portraits, Still Lifes, Interiors, and more P.63

▸ **NEW PHOTOSHOP CS6**
All the Facts You Need P.84

Conflict in Infrared P.26

Your Best Photos P.36

Zoo Shooting Tips P.46



Create Explosions P.52

Aerial Landscapes P.54

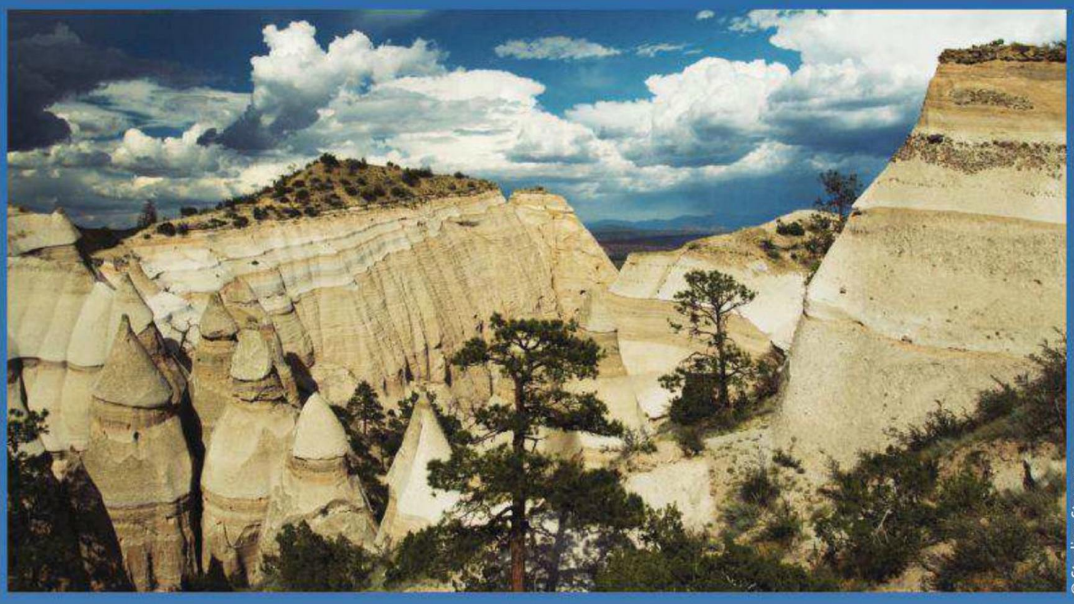
0 74851 08399 4
JULY 2012
US $4.99

New Mexico

Santa Fe & Albuquerque Balloon Fiesta

October 5–7, 2012

© Sandra Layne



© Sterling Stevens

© Natalia Bratslavsky

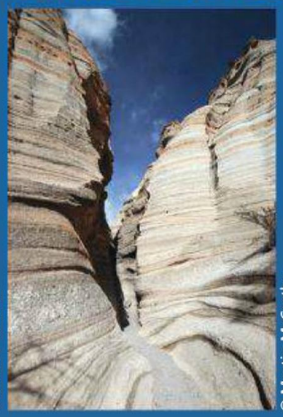
REGISTER AT WWW.MENTORSERIES.COM

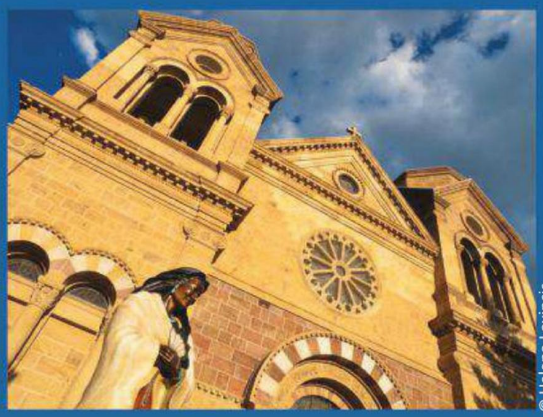
For more information, call toll-free 888-676-6468.

MENTOR SERIES
Worldwide Photo Treks

FOLLOW US ON Mentor Series Worldwide Treks

© Jeffrey Kreulen


© Martin McCarthy


© Helena Lovinčić

Come along for the photo opportunity of a lifetime as the Mentor Series heads to New Mexico to take in dramatic landscapes, rich cultural history and the hot-air extravaganza at the Albuquerque International Balloon Fiesta. Indulge photographically in the visual splendor this desert locale offers, while Nikon professional photographers Reed Hoffmann, David Tejada and Michael Clark share their extensive photographic knowledge and assist you in making the images you desire.

New Mexico's enchanting scenic beauty will be evident when we turn our cameras on Kasha-Katuwe Tent Rocks National Monument to take advantage of the unusual and otherworldly scene before us. The naturally sculpted curved walls of the slot canyons reveal the intricate multicolored layers, composed of pumice and ash from volcanic eruptions that occurred six to seven million years ago. Frame the massive cone-shaped rock formations soaring high amid a mountainous backdrop, or stand atop the mesa and consider the role of the hoodoos juxtaposed with the juniper trees. As the sun descends, head to White Rock Overlook to capture the sweeping panoramic views, which showcase the mighty Rio Grande snaking elegantly through the landscape.

Arrival at the Balloon Fiesta before sunlight is paramount, and the variety of vibrant subject matter at this world-famous event is seemingly endless. Take a step back with your wide angle to record the entire scene, or focus on intricate details that inspire you; but regardless, enjoy the ease with which you can make your photographs while walking among the balloons and conversing with the pilots. Balance your composition as you capture the process of the crews preparing for launch, or the dazzling array of color against the deep blue New Mexico sky. After the sun sets, enjoy the breathtaking "glow event" when the balloons are tethered and fire their burners simultaneously, creating a spectacular ethereal moment. With our mentors' best advice and the Fiesta's unique access, you will have ample opportunity to creatively record the various elements of this festival, highlighting the world's oldest aviation sport, from inflation to flight.

Change your perspective and if you so choose, take to the wind and journey upward in a balloon. Be among the morning's Mass Ascension when hundreds of balloons launch together to display a kaleidoscope of brilliant hues—distinctly at eye level. Don't just imagine the possibilities for amazing aerial and balloon photographs, use what you learn to confidently create them.

If you have ever wanted to visit the Balloon Fiesta and take timeless images of this romantic pastime, don't miss this unique chance to experience New Mexico with the Mentor Series. Sign up today!

SCHEDULED TO APPEAR
Limited to 15 Students per Instructor

REED HOFFMANN
USA Today
Associated Press

DAVID TEJADA
NikonNet
Fortune

MICHAEL CLARK
National Geographic
Sports Illustrated

Workshop Fee: $1,225*

* Includes in-the-field instruction, entrance fees, presentations, digital reviews, and transportation to each shooting location. Optional add-on: sunrise hot air balloon ride from Balloon Fiesta Park during the Fiesta (additional fee).

With additional support from:

Manfrotto Imagine More

SanDisk

Special thanks to our premier sponsor:

Come to New Mexico and try out some of the latest equipment that **Nikon** offers including their high-performance digital SLRs, NIKKOR lenses, the Nikon 1 System and a variety of COOLPIX compact digital cameras.

At the heart of the image™ Nikon®

SIGMA

SD1 Merrill

The SIGMA SD1 Merrill
DIGITAL SINGLE LENS REFLEX CAMERA
WITH FULL COLOR IMAGE SENSOR

© 2012 David FitzSimmons | CAMERA: SIGMA SD1, ISO: 100 | LENS: Macro 105mm F2.8 EX DG, Shutter speed: 1/160 sec, Aperture: f11

Revolution.

**Astounding resolution.
Rich tones and gradation.
Vibrant color.**

www.SIGMA-SD.com

Sigma has started an image revolution. Exclusive to Sigma, the SD1 Merrill utilizes the world's one and only Foveon X3 Direct Image Sensor to capture all three primary colors of light at every pixel location; something other image sensors can't do.

What does that mean? It translates into images with the most astounding resolution, rich tones and gradation, vibrant color and ultimately, the most realistic photographs you've ever captured. With 46-megapixels and no low pass filter to cause blurring, you can expect exceptional resolution and the finest of details.

If you've been waiting for a breakthrough in digital image quality, it's here. Join the Sigma SD1 Revolution.

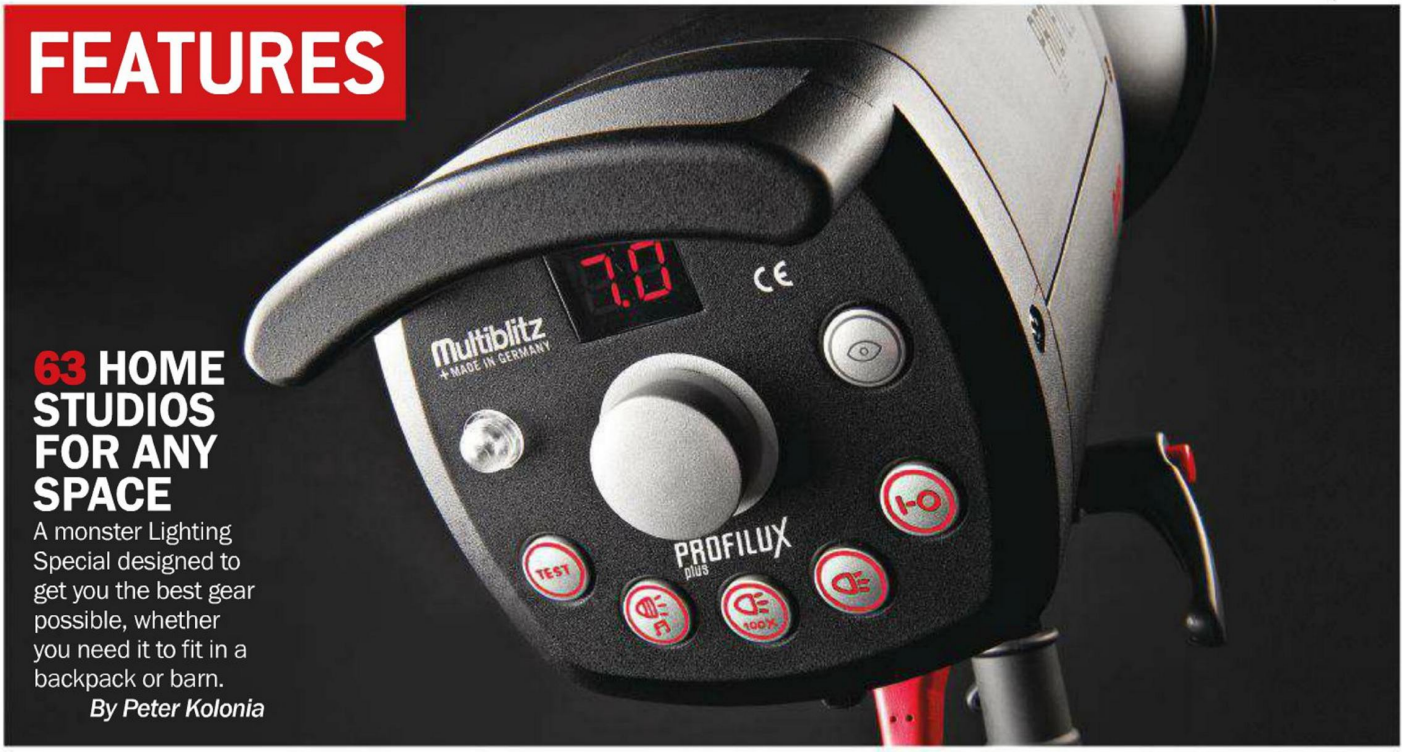
SIGMA CORPORATION OF AMERICA 15 Fleetwood Court Ronkonkoma, NY 11779, U.S.A. | Tel: (631) 585-1144 | Fax: (631) 585-1895 | www.sigmaphoto.com
Follow us on Twitter @Sigma_Photo and Facebook.com/sigmacorporationofamerica

CONTENTS

HOW TO MAKE GREAT PICTURES JULY 2012 VOLUME 76, NO. 7

Please Recycle This Magazine

FEATURES

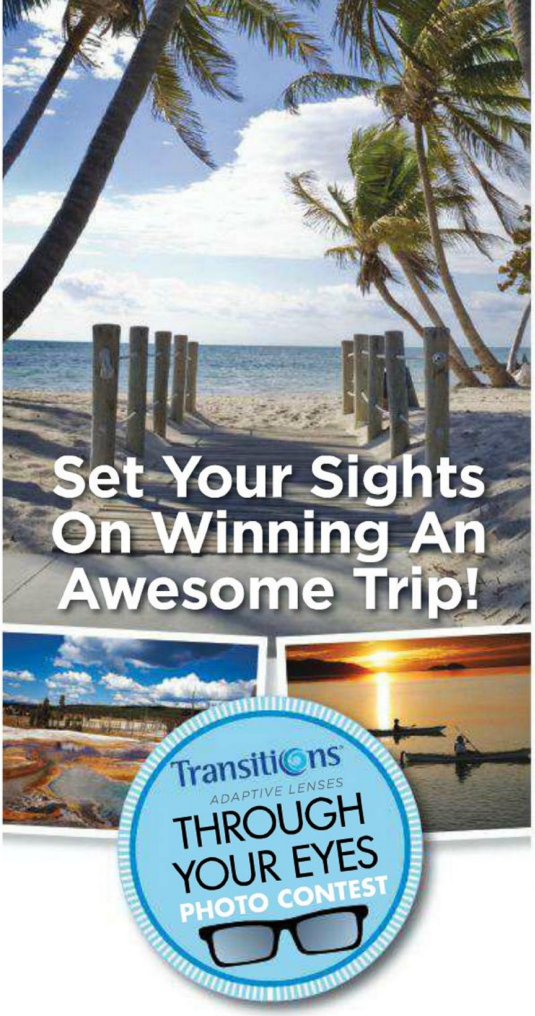


63 HOME STUDIOS FOR ANY SPACE
A monster Lighting Special designed to get you the best gear possible, whether you need it to fit in a backpack or barn.
By Peter Kolonia

54 AERIAL ACES
We showcase a trio of the world's highest-flying aerial photographers, who capture our planet in unimaginable ways. Each is different in what and how he shoots. So get ready for take off on a visually thrilling flight.
By Dan Richards

60 TEN RULES TO BREAK
Our unorthodox guide to nature photography reveals which maxims and mandates it's perfectly okay to ignore. What, you shoot in manual? Read this quick!
By Richard Bernabe and Ian Plant

DAN BRACAGLIA (LIGHT); JASON HAWKES (CITYSCAPE); IAN PLANT (FOREST AND BIRD)



Set Your Sights On Winning An Awesome Trip!

You can win an all-expenses paid domestic Mentor Series Trek and a chance to have your winning image featured in an upcoming issue of *Popular Science*. Upload your best sightseeing images to the Transitions® lenses: Through Your Eyes Contest, sponsored by VSP Vision Care and Transitions lenses, the lenses that adapt to enhance your vision, and hosted by *Popular Science*.

Images that capture the fun and creative joy of sightseeing with your camera are what we're looking for, and the pictures you submit can be shot at any identifiable site, location, or event you encounter in your travels, from far-flung vacation destinations to those in your hometown. To enter, submit your images to popsci.com/transitionscontest anytime from May 12 - July 29, 2012.

Good luck and good shooting!

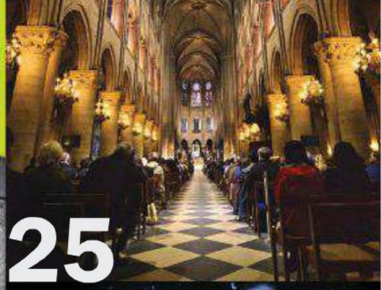
To enter visit popsci.com/transitionscontest

Transitions ADAPTIVE LENSES

OFFICIAL SPONSOR OF SIGHT SEEING

POWERED BY POPULAR SCIENCE

VSP Vision Care



NEXT

15 WE WANT THIS An all-weather DSLR that taunts hurricanes for fun.

16 JUST OUT A Wi-Fi-enabled ILC, an Alpha upgrade, wide-angle primes from Canon and Nikon, and lots more.

20 ROUNDUP Five new photography books show you how it's done.

22 CLOSER LOOK Leica's latest M camera proves how colorful b&w can be.

SHARE

25 PHOTO CHALLENGE Our winning reader mastered mixed light.

26 MY PROJECT Richard Mosse depicts the conflict in Congo in infrared.

28 I, PHOTOGRAPHER For a photo archivist, the past lives on in prints.

32 LETTERS This month, our readers are incensed by censorship.

34 TECH TALK The ironies of color accuracy, plus the fine points of bracketing and digital collaging.

36 YOUR BEST SHOT Our judges were drawn to full-tone imagery.

HOW

41 CREATIVE THINKING Give yourself a leg up when shooting in strange waters: Find a good guide.

42 FIX IT FAST Try these subtle techniques for more natural landscapes.

44 TIPS & TRICKS Look down to find your next photo in the shadows.

46 TRAVELING PHOTOGRAPHER Swing by the zoo to hone your wildlife-shooting skills.

48 SOFTWARE WORKSHOP Tether your camera to a computer using Lightroom for true WYSIWYG shooting.

52 YOU CAN DO IT Experiment with controlled explosions as your background. (Yes, you read that right!)

LAB

73 DSLR TEST Canon EOS 5D Mark III Resolution hasn't changed, but almost everything else makes this a significant advance over the Mark II.

78 DSLR TEST Nikon D800 Pixels out the wazoo (with detail to match), and video connectivity, too.

84 SOFTWARE REVIEW Adobe Photoshop CS6 An upgrade that's far more than a tweak. Pounce!

DON'T MISS . . .

6 EDITOR'S LETTER
12 SHOWCASE
102 TIME EXPOSURE
116 BACKSTORY

POPULAR PHOTOGRAPHY (ISSN 1542-0337) (USPS 504-890), July 2012, Volume 76, Issue 7, is published monthly by Bonnier Corporation, 2 Park Ave., New York, NY 10016. Periodicals postage paid at New York, NY and additional mailing offices. Authorized periodicals postage by the Post Office Department, Ottawa, Canada, and for payment in cash. POSTMASTER: Send address changes to Popular Photography, P.O. Box 420235, Palm Coast, FL 32142-0235; www.PopPhoto.com/cs. If the postal service alerts us that your magazine is undeliverable, we have no further obligation unless we receive a corrected address within one year.
Publications Mail Agreement No. 40052054, Canadian Registration Number 126018209RT0001. Return undeliverable Canadian addresses to: Pitney Bowes, P.O. Box 25542, London, ON N6C 6B2.
SUBSCRIPTION SERVICES: Visit www.PopPhoto.com/cs to manage your account 24/7 or call 1-386-246-0407.

NEWSSTAND COVER: SATOSHI (CAMERAS); RICHARD MOSSE / INSTITUTE / JACK SHAINMAN GALLERY (INFRARED); MICHAEL BANDY (CITYSCAPE); ADRIAN TAVANO (FLAMINGO); TERU ONISHI (JEWELRY); KENNETH MITCHELL (AIRPLANE WINDOW). SUBSCRIBER COVER: CAROL WEINBERG. THIS PAGE: UNDINE VINH (CATHEDRAL); TERU ONISHI (JEWELRY).

THE FASTEST, EASIEST PORTRAIT TOUCH-UP SOFTWARE

10% OFF

Popular Photography readers get an **EXTRA 10% OFF** with the code **GQ6484** when buying online.

Expert photo touch-up has never been easier.
With Portrait Professional 10 intelligent retouching software you can enhance people photos in minutes. From a subtle improvement to a magazine cover look, it gets you the results you want, fast.

DOWNLOAD YOUR FREE TRIAL NOW!
WWW.PORTRAITPROFESSIONAL.COM

PORTRAITPROFESSIONAL 10

Tokina
CONSUMER REBATES
April 1 - June 30, 2012

$40.00 REBATE!
AT-X 116 PRO DX
AF 11-16mm f/2.8
Available Mounts: Canon, Nikon, Sony Digital with APS-C sized sensors

$50.00 REBATE!
AT-X 16-28 F2.8 PRO FX
AF 16-28mm f/2.8
Available Mounts: Canon, Nikon Digital with Full Frame FX & APS-C sized sensors

$40.00 REBATE!
AT-X 17-35 F4 PRO FX
AF 17-35mm f/4
Available Mounts: Canon, Nikon Digital with Full Frame FX & APS-C sized sensors

Visit www.thkphoto.com for complete details and conditions of this offer.
THK PHOTO PRODUCTS, INC.
Tokina • HOYA • Kenko • SLIK
7642 Woodwind Drive, Huntington Beach, CA 92647

EDITOR'S LETTER

The Camera to Buy

The question is inevitable. Sooner or later, every person who knows what I do for a living asks me what camera to buy. Or, more accurately, what's the best camera at whatever price my questioner can afford and wants to spend. Some people discuss this nearly every time I see them (Murray, I'm talking to you).

But I can never provide a simple answer to the question, and this month's pair of camera tests provide an explanation for why I can't. You see, Canon's EOS 5D Mark III and Nikon's D800—tested on pages 73 and 78, respectively—are both terrific full-frame DSLRs. They deliver plenty of resolution, serve up clean and color-accurate images over a wide range of ISOs, sport top-notch autofocus tracking and exposure metering systems, capture outstanding video footage, and feel great in the hand.

Sure, but which camera is better? Neither. It all depends on how you, as a photographer, use your camera, what kinds of subjects you shoot, and how much you have already invested in lenses and other dedicated accessories (and thus how reluctant you are to switch systems).

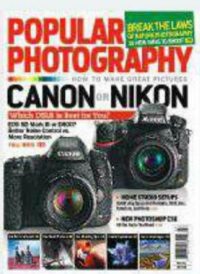
In this case, the Canon leads in low-light performance and burst speed, while the Nikon rules in resolution and—this may come as a surprise—video. Some of their differences may seem small but could prove crucial to particular applications, and their very strengths come with corresponding drawbacks. You need to understand the tradeoffs.

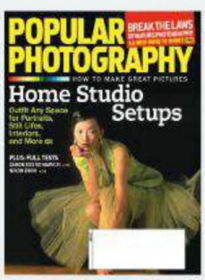
For instance, the Nikon has a pop-up flash, which can also control wireless accessory units. Strictly an available-light shooter? The flash won't matter to you, and the Canon's superior noise control at high ISOs may make it your better choice. Another example: The Nikon's ultra resolution lets you capture an astonishing amount of detail, make huge prints, and crop your photos heavily. But it also produces bigger image files that will take much longer to process than files from the Canon will.

This month we also checked out two new cameras that will appeal most—or only—to very specific types of photographers. The rugged Pentax K-30 (page 15) boasts extensive weathersealing that makes it a natural fit for outdoor shooters. And, in a much more rarefied niche, the Leica M Monochrom (page 22) captures only in black-and-white.

Don't ask me what camera I'd buy. I get to borrow all of them (albeit briefly) from our lab after we test them and before we send them back. Besides, why choose just one when there are so many possibilities?

Miriam Leuchter





NEWSSTAND Two new full-framers hit our test lab simultaneously. Get the scoop on Canon's EOS 5D Mark III and Nikon's D800 starting on page 73. Photos by Satoshi.

SUBSCRIBER Fashion photographer Carol Weinberg hung a backdrop in her house for this gorgeous portrait. Learn strategies for home studios to fit any space, page 63.

Do your images reflect your vision?

Now they can...with HDR processing!

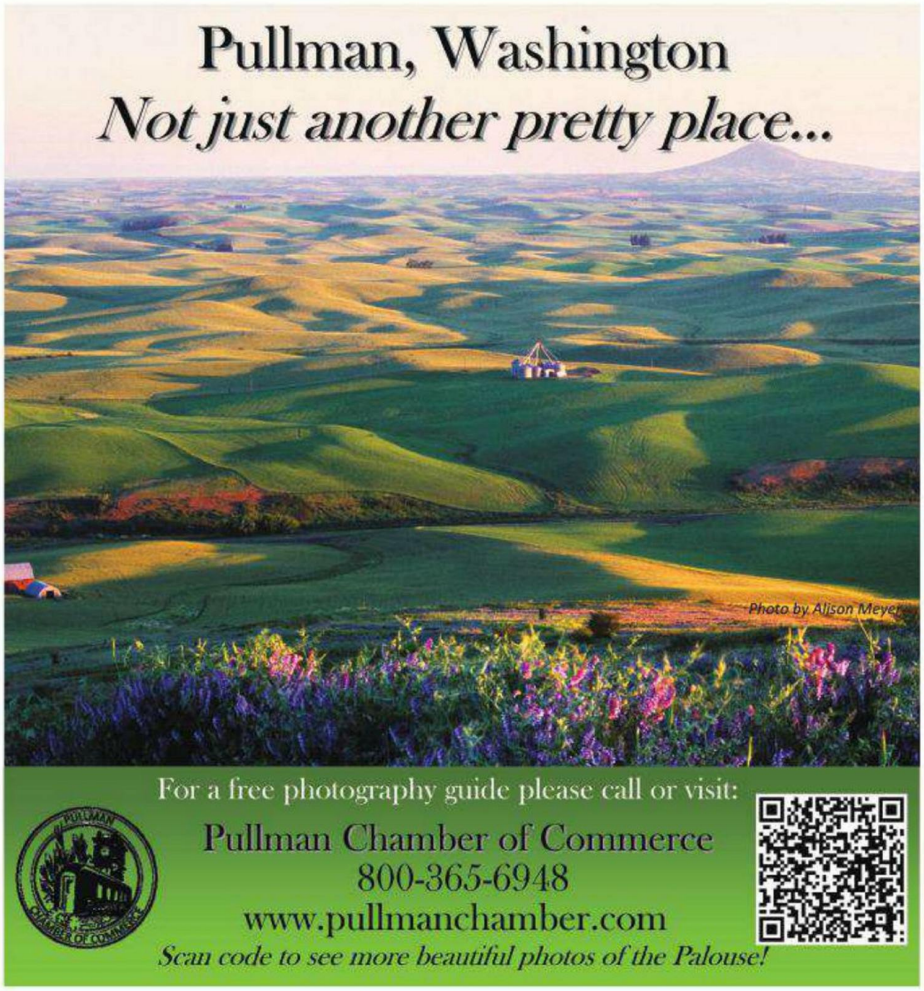
Create the look you want with High Dynamic Range processing in Photomatix

If you have ever photographed a high-contrast scene, you know that even the best exposure will typically have blown out highlights and flat shadows. The solution to this problem is High Dynamic Range (HDR) processing. Take three or more photos at varying exposure levels and load them into Photomatix software for merging into HDR. The resulting image reveals highlight and shadow details and you may further adjust it to your liking. Various settings and one-click presets let you get the look you want, from natural-looking to painterly, surreal or ultra-realistic effects. **Make every image capture your vision with Photomatix.**

Cove Point Lighthouse photo © Ferrell McCollough

Available for Windows and Mac OS X

www.hdrsoft.com


Pullman, Washington
Not just another pretty place...
Photo by Alison Meyer
For a free photography guide please call or visit:
Pullman Chamber of Commerce
800-365-6948
www.pullmanchamber.com
Scan code to see more beautiful photos of the Palouse!

Compact camera carrying just got a whole lot of fun.
• securely attaches to any backpack or sling bag
• eliminates neck strain caused by neck straps
• includes a FREE Hand Strap
Measuring only 6" by 3" the StrapShot attaches easily and is perfect for travelling.
call 1.877.852.9423
www.cottoncarrier.com
image by David Kolbowicz

POPULAR PHOTOGRAPHY

EDITOR MIRIAM LEUCHTER
ART DIRECTOR Jason Beckstead
SENIOR EDITOR Peter Kolonia
SENIOR EDITOR Dan Richards
SENIOR EDITOR Debbie Grossman
TECHNICAL EDITOR Philip Ryan
TECHNOLOGY MANAGER Julia Silber
ASSISTANT EDITOR Matthew Ismael Ruiz
ART/PRODUCTION ASSISTANT Linzee Lichtman
EDITORIAL COORDINATOR Jae Segarra

CONTRIBUTING EDITORS Laurence Chen, Kathleen Davis, Tim Fitzharris, Lori Fredrickson, Ian Plant, Jeff Wignall

WEB EDITORIAL DIRECTOR John Mahoney
POPPHOTO.COM EDITOR Stan Horaczek
ASSISTANT ONLINE EDITOR Dan Bracaglia
IN MEMORIAM Herbert Keppler

BONNIER'S TECHNOLOGY GROUP

CREATIVE DIRECTOR Sam Syed
ART DIRECTOR Todd Detwiler
PHOTO EDITOR Thomas Payne
MANAGING EDITOR Jill C. Shomer

VICE PRESIDENT STEVEN B. GRUNE
ASSOCIATE PUBLISHER Anthony M. Ruotolo (212-779-5481)
ASSOCIATE PUBLISHER, MARKETING Michael Gallic
EXECUTIVE ASSISTANT Christopher Graves
FINANCIAL DIRECTOR Tara Bisciello
CONSUMER MARKETING DIRECTOR Diane G. Potter
NATIONAL SALES MANAGER Matthew Bondy
NORTHEAST ADVERTISING OFFICE
Scott Constantine, David Ginsberg, Caitlyn Welch
PHOTO MANAGER Sara Schiano Flynn
AD ASSISTANT Colleen Nicoisa
MIDWEST MANAGER John Marquardt
AD ASSISTANT Lori Altieri
LOS ANGELES MANAGERS Robert Hoeck, Bob Meth
AD ASSISTANT Janice Nagel
NORTHWEST MANAGER Jay Monaghan
DETROIT MANAGER Edward A. Bartley
AD ASSISTANT Diane Pahl
SOUTHERN MANAGER Jason A. Albaum
CLASSIFIED ADVERTISING SALES Chip Parham
TRAVEL MANAGER Jeff Posner
ADVERTISING DIRECTOR, DIGITAL Alexis Costa
DIGITAL OPERATIONS MANAGER Rochelle Rodriguez
DIGITAL PROJECT COORDINATOR Elizabeth Besada
INTEGRATED SALES DEVELOPMENT DIRECTOR Mike Kelly
INTEGRATED SALES DEVELOPMENT MANAGERS Kat Collins, Kelly Martin
GROUP DIRECTOR, CREATIVE SERVICES/EVENTS Mike Iadanza
DIRECTOR OF EVENTS Michelle Cast
SPECIAL EVENTS MANAGER Erica Johnson
DIGITAL DAYS MANAGER Benny Migliorino
WORKSHOP MANAGER David Fine
MARKETING ART DIRECTORS Shawn Woznicki, Lindsay Krist
PROMOTIONS MANAGER Eshonda Caraway-Evans
AD COORDINATOR Irene Reyes Coles
PUBLICITY MANAGER Hallie Kapner (halliekapner@gmail.com)
HUMAN RESOURCES MANAGER Kim Putman
PRODUCTION MANAGER Betty Dong
GROUP PRODUCTION DIRECTOR Laurel Kurnides

BONNIER

CHAIRMAN Jonas Bonnier
CHIEF EXECUTIVE OFFICER Terry Snow
CHIEF FINANCIAL OFFICER Randall Koubek
VICE PRESIDENT, CORPORATE SALES John Driscoll
CHIEF BRAND DEVELOPMENT OFFICER Sean Holzman
VICE PRESIDENT, CONSUMER MARKETING Bruce Miller
VICE PRESIDENT, PRODUCTION Lisa Earlywine
VICE PRESIDENT, INFORMATION TECHNOLOGY Shawn Larson
VICE PRESIDENT, CORPORATE COMMUNICATIONS Dean Turcol
PUBLISHING CONSULTANT Martin S. Walker
GENERAL COUNSEL Jeremy Thompson

FOR CUSTOMER SERVICE AND SUBSCRIPTION QUESTIONS, such as Renewals, Address Changes, Email Preferences, Billing and Account Status, go to: **PopPhoto.com/cs**
You can also call 386-246-0407 or write to Popular Photography, P.O. Box 420235, Palm Coast, FL 32142-0235

METALPRINTS

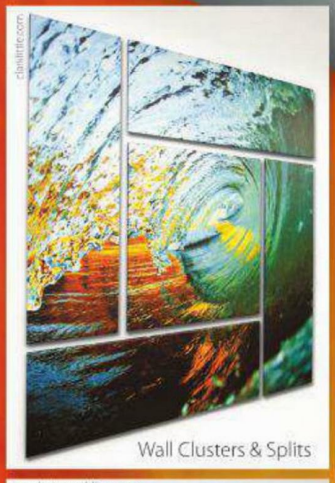
steveharrington.net

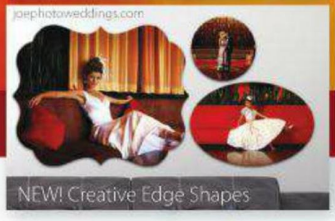
We Do Custom Sizes!

Stunning, Vibrant Prints That Endure the Test of Time

While photo papers have fantastic image stability, Xenon Light Stability Testing results show that the image stability of MetalPrints is 2 to 4 times the image stability of traditional silver based photo papers.

MetalPrints™ are made by infusing dyes directly into specially coated aluminum sheets. This creates an image with a magical luminescence, vibrant colors, incredible detail, and exceptional archival qualities. The surface is easy to clean, waterproof and scratch resistant. Choose from High Gloss, Satin, Sheer-Matte, or Sheer-Glossy surfaces. Available in a wide variety of sizes up to 40x60 with contemporary mounting and framing options.





Learn More at **www.bayphoto.com/metalprints**

25% Off Your First Bay ROES Order!*

*For instructions on how to redeem this special offer, fill out the New Customer Account Request form at www.bayphoto.com.

bayphoto.com

WE'RE HERE FOR YOU!

learn to shoot like a pro

Join us on our digital days tour through the country, where you can learn about your camera's functionality and how to capture amazing photographs through live demonstrations and hands-on instruction.

Find us on Facebook

DIGITAL DAYS

© David McLain
Sony Artisan of Imagery

POPULAR PHOTOGRAPHY

digitaldays

Photography & Video Workshop

sponsored by

SONY

make.believe

three great photography workshops

early registration classes starting just at $69 per workshop!

1 digital fundamentals

Have you just purchased a DSLR (Digital Single Lens Reflex) camera or plan on purchasing one in the near future? "If you want to better understand aperture and shutter speed then this course is for you."

2 expanding the fundamentals

Take your camera out of auto mode. Learn more about your camera's functionality and and gain more control of the photos you take.

3 intermediate hands-on photo

You are now off auto mode and ready to expand your skills. This hands-on workshop will teach you all the tips and techniques of shooting indoor and outdoor photography.

upcoming locations

LONG ISLAND, NY	MARCH 31 - APRIL 1
DALLAS, TX	APRIL 14- 15
CINCINNATI, OH	APRIL 28 - 29
CHICAGO, IL	MAY 12-13
SAN FRANCISCO, CA	MAY 19-20
PHILADELPHIA, PA	JUNE 2-3
BOSTON, MA	**JUNE 9-10**
ATLANTA, GA	**JULY 7-8**
SEATTLE, WA	**JULY 28-29**
MINNEAPOLIS, MN	**AUGUST 4-5**
RICHMOND, VA	**AUGUST 11-12**
LITTLE ROCK, AR	**AUGUST 25-26**
SAN DIEGO, CA	**SEPTEMBER 8-9**
ANN ARBOR, MI	**SEPTEMBER 22-23**
HOUSTON, TX	**OCTOBER 13-14**
RALEIGH-DURHAM, NC	**NOVEMBER 3-4**
SAN JOSE, CA	**DECEMBER 8-9**
FAIRFIELD, NJ	**DECEMBER 15-16**

meet our instructors

LESLIE FISHER
Pro photographer

MARK REIS
Pro photographer

come and experience the latest award winning cameras from Sony.

www.sony.com/alpha
www.sony.com/nex

for more information go to digitaldaysphoto.com or call 212-779-5362

Get the free mobile app at
http://gettag.mobi

DAN BRACAGLIA

DEVILISHLY DETAILED

To give you a sense of the resolving power of the Nikon D800's chart-topping 36MP full-frame sensor, Dan Bracaglia, our assistant web editor, attached a 14–24mm f/2.8G Nikkor lens, mounted the camera to a tripod, and shot from a 9th-floor garden terrace in midtown Manhattan. His exposure: 2 sec at f/8, ISO 2000. Back at our offices, he added a little brightness and contrast in Adobe Photoshop CS5. For our full lab and field test of the Nikon D800, see page 78.

FUJIFILM
expect INNOVATION™

FUJIFILMX10USA.COM

DESIGNED
TO DELIVER.
ENGINEERED
TO INSPIRE.

CLASSIC CRAFTSMANSHIP COMBINED WITH SENSATIONAL IMAGE QUALITY

- Sophisticated, compact digital camera inspired by the FUJIFILM X100
- Featuring retro styling and superior craftsmanship
- Unique FUJIFILM 2/3" EXR CMOS sensor for superb image quality
- Bright, high-definition FUJINON F2.0 lens (wide-angle to F2.8 telephoto, 4x manual zoom 28-112mm)

FUJIFILM X-SERIES

X10

X100

X-Pro1

FUJIFILM and FUJINON are trademarks of FUJIFILM Corporation and its affiliates. © 2012 FUJIFILM North America Corporation and its affiliates. All rights reserved.

NEXT

CANON'S NEW STABILIZED PRIMES 16

BOOKS TO TAKE YOUR PHOTOS FURTHER 20

A CLOSER LOOK AT THE ALL-B&W LEICA 22

WE WANT THIS

GET IT WET

A new Pentax DSLR, ready for any weather

WE'RE USUALLY fans of Pentax's DSLRs, and we expect that the 16MP K-30 will be no exception. This midlevel entry, which bumps the K-r from the Pentax line, boasts 81 seals for defense against water, dust, and whatever else nature throws at you—an unusual amount of weathersealing for this price.

Playing with a preproduction sample, we liked the body's feel and the focus-peaking preview during live view, which makes manual focus easier and should come in handy before recording video (up to 1920x1080p30).

The APS-C sensor shoots at ISOs up to 25,600. It captures bursts in RAW at 6 frames per second; the viewfinder has a 100% field of view; 9 of the 11 AF points have cross-type sensors. With the K-30's built-in image stabilization, all your lenses—even K-mount glass from film days—will benefit.

We look forward to using a full production model outdoors and in the Pop Photo Test Lab.

PENTAX K-30

16MP APS-C CMOS sensor
Water- and dust-resistant
Available in black, blue, and white
$850, street, body only
pentax imaging.com

LESS SHAKE

Canon adds IS to two of its wide-angle prime lenses

THE INDUSTRY'S widest prime with image stabilization, Canon's new 24mm f/2.8 IS USM lens ($849, street) focuses to less than 8 inches and promises very pretty defocused backgrounds for close-ups captured at f/2.8.

While this will help you create stunning still lifes, its potential for video is equally exciting—great fun with perspective, low light, and shallow focus for visually startling results not possible with a similarly close-focusing camcorder. Thanks to IS, you can shoot handheld more often. The silent USM focusing motor prevents audible autofocus whir, and you get full manual focus. The wide f/2.8 aperture helps when shooting dimly lit scenes.

Another advantage: The lens weighs less than 10 oz. Canon says that its focusing algorithms have been upgraded for speedier AF performance, and also claims that sharpness around the edges has been improved with new aspheric lens elements.

Is 24mm too wide for you? Canon has similarly upgraded its 28mm f/2.8 ($799, street) with IS and a new USM focusing motor.

Canon 24mm f/2.8 EF IS USM
$849, street
usa.canon.com

Canon's new stabilized 24mm f/2.8 prime (plus a 28mm f/2.8) replaces first-generation EF glass introduced more than 20 years ago.

SHARE FROM HERE

Samsung's newest top-of-the-line ILC has Wi-Fi

ITS POINT-AND-SHOOT cameras were among the first with Wi-Fi, so we weren't surprised when Samsung announced it would add wireless functionality to three new interchangeable-lens compacts, including the NX20.

But Wi-Fi and a bigger 20.3MP sensor are not the only things new to the NX20, which replaces the NX10 at the top of Samsung's lineup. ISOs reach 12,800, and it records video with stereo sound at 1920x1080p30. Shutter speeds hit 1/8000 sec, and bursts top out at 8 fps. Like the NX10, it comes with an 18–55mm OIS lens, and it sports a swing-out AMOLED monitor on the back.

Samsung NX20
$1,099, street, with 18–55mm lens
www.samsung.com

PHILIP RYAN (SCREEN IMAGE)

NEWS FEED

> High-end equipment makers Hasselblad and Bron have merged their U.S. operations; go to Hasselblad Bron Inc. for customer support.

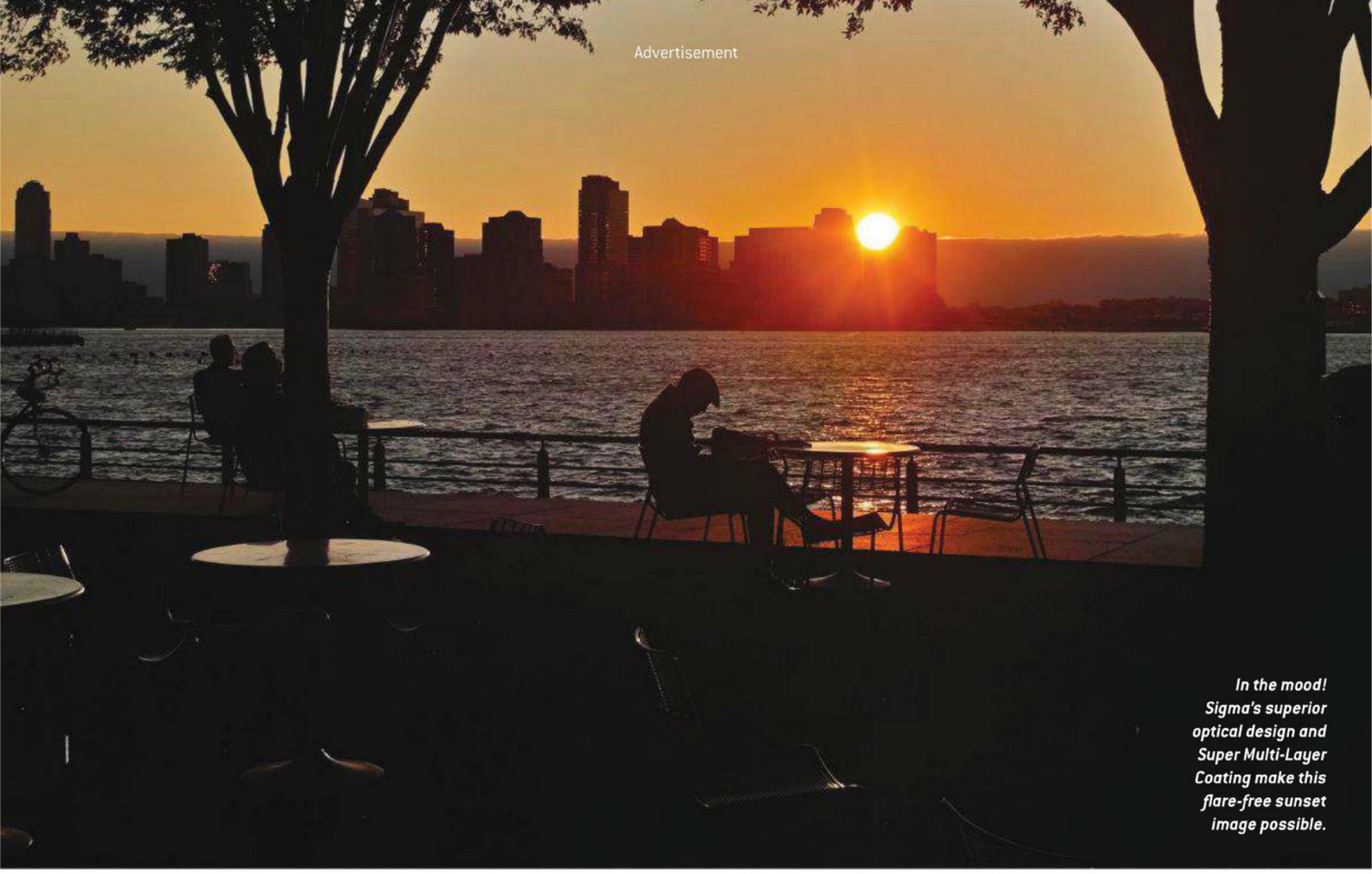
> Lightroom 4 users: Don't forget to upgrade to the latest version. It adds new controls to correct for color fringing.

INSIDE TECH

Upload 'Em

It seems as though no moment counts until you share a picture of it, so most people use their phones to shoot for fast and easy posting. But the NX20 lets you email and upload ILC-quality pictures to Facebook, YouTube, and other sites—right from the camera. If you have a Samsung TV, tablet, or smartphone, you'll get even faster access.

Advertisement



In the mood! Sigma's superior optical design and Super Multi-Layer Coating make this flare-free sunset image possible.

YOUR WORLD IN ONE GREAT LENS

SIGMA'S 18-200MM F3.5-6.3 II DC OS HSM

This new ingeniously enhanced, ultra-compact super-zoom for APS-C-format digital SLRs takes the all-in-one lens to an unprecedented level of performance, versatility and user-friendly convenience.

DESIGN

It incorporates Sigma's latest advances in optical design to deliver outstanding image quality, and the latest innovations in mechanical construction to provide robust dependability and amazing shooting flexibility in a handy, lightweight, high-value package.

RANGE

Covering an impressive 11.1X zoom range from true wide angle to super telephoto, it enables photographers at all skill levels to capture virtually any subject or scene without changing lenses. Its ultra-smooth zooming action ensures fast jiggle-free framing that's crucial when following fast-moving action or shooting video.

OPTICAL STABILIZER (OS)

It incorporates the newest two-sensor version of Sigma's proprietary Optical Stabilizer (OS) system that detects vertical and horizontal camera movement, providing up to a 4-stop advantage in eliminating blur due to hand-held camera shake, a major advantage for capturing crisp images in low light and at long telephoto settings.

OUTSTANDING IMAGE QUALITY

Its exclusive Hyper Sonic Motor (HSM) and internal focus system provide precise, ultra-quiet, high-speed autofocus, and its DC (digital) design is optimized for unsurpassed image quality with APS-C-sensor cameras. It includes one FLD (fluorite equivalent) element, two SLD glass elements, two molded-glass aspheric elements, and one hybrid aspheric element to achieve the very highest level of color correction and outstanding imaging performance over the entire zoom range.

HIGH TECH FOR EVERYBODY

With a wealth of cutting-edge technology integrated into an unbelievably compact, easy-to-use package, the latest Sigma 18-200mm II DC OS is the perfect choice for travelers, hikers, family memory keepers, and soccer moms. It will also delight serious enthusiasts and pros—indeed, anyone that demands the ultimate in optical versatility, easy-packing portability, and real-world performance.

FAMILY VALUES

Sigma, a privately held family firm, offers a selection of over 40 world-class lenses in mounts for Nikon/Fuji, Canon, Sony, Sigma, Pentax/Samsung, and Olympus/Panasonic, many of which incorporate special FLD and SLD glass for superior color correction and professional imaging performance. All Sigma products are precision manufactured in Japan to ensure the highest quality and stringent quality control.

TRY THE LATEST SIGMA LENSES
at the American Photo Model Shoot:

americanphotomodelshoot.com

SIGMA

For more information, visit **sigmaphoto.com**

WIDE ENOUGH

Nikon adds a third 28mm full-frame prime

FOR MANY shooters, 28mm is the best focal length for half-length environmental portraits. It's also a good choice for travel, landscapes, and group shots. No surprise, then, that Nikon makes three 28mm full-frame primes.

The newest has an f/1.8 maximum aperture (the others are both f/2.8s). Like all Nikon G lenses, it has no aperture ring. Other advantages: a fast and silent SWM focusing motor, manual focus during AF, and Nikon's flare-suppressing Nano Crystal Coat.

While the $700 street price may seem steep, this lens is far less costly than Nikon's faster wide-angle primes (the 24mm f/1.4 will set you back $1,999). We haven't tested it yet, but this utility lens could be a good investment.

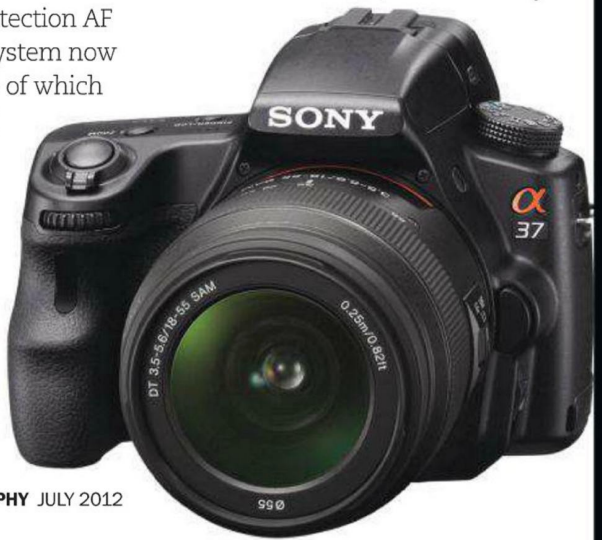
28mm f/1.8G Nikkor AF-S FX **$699, street** www.nikonusa.com

AN EASY A

Sony's entry-level Alpha gets some improvements

THE NEW 16.1MP Alpha 37 replaces the entry-level A35, and like all of Sony's translucent-mirror cameras, the word is speed. In Tele-Zoom High Speed shooting mode (which applies a 1.4X crop factor to the already-cropped image) you can reach 7 fps with phase-detection AF engaged. That AF system now has 15 points, three of which are cross-type. The camera's Pixel Super Resolution Technology and Clear Image Zoom puts a new twist on digital zoom—Sony claims it minimizes loss of quality. For some compositional help, try the new Auto Portrait Framing feature—this crops portraits according to the rule of thirds, automatically.

Sony Alpha SLT-A37
$598, est. street, with 18–55mm lens
www.sony.com



NEWS FEED

> For $750, Lensbaby devotees can get the new Pro Effects kit, which bundles together the Composer Pro with two optics, macro converters, a cleaning cloth and a neat system bag.

> Action camera maker GoPro has a new dive housing, which will let you go as deep as 197 ft with your HD Hero camera; the housing will set you back about $50.

> It's not always easy to tell which lens is which when you've got a lot of them stuffed into your camera bag. LensBling makes a series of lens back caps labeled by focal length for fast access.

> Medium-format digital keeps getting bigger. The latest Mamiya Leaf Credo backs come in 40-, 60-, and 80MP, and each features a 1.15 million-dot touchscreen on the back to help control it.

One For the Road

Think Tank Airport Commuter

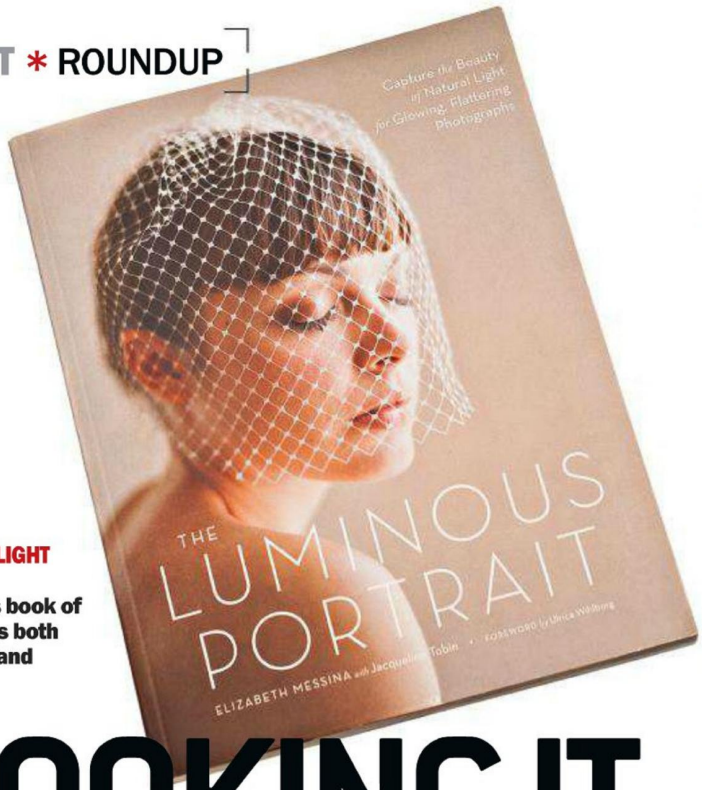
We've always found Think Tank to make camera bags with thoughtful features, and the Airport Commuter backpack ($200, direct; www.thinktankphoto.com) is no exception. A large front pocket has a dual, padded slot for both a tablet and laptop—good for fast access in the security line and keeping your heavy gear off your computer when you lay the bag down. A combo lock secures the zippers. The bag holds a pro-sized body and plenty of lenses, too.

THE LOWDOWN

SUBSCRIPTION-BASED APPS

With the sixth edition of Adobe's Creative Suite comes Creative Cloud, a monthly subscription-based service that includes access to the entire CS6 Master Collection, along with 20GB of file storage, fonts, web hosting, and connection to Adobe's tablet apps. The service can be cost-effective for upgraders: Could this be the future distribution mode for pricey software?

Absolute perfection.
Gitzo
Rebates
Up to $100
Valid from: April 15 - June 30, 2012
GITZO
CARBON
6X
GITZO
SYSTEMATIC
Gitzo's top of the range modular Systematic tripods have been redesigned to provide photographers with even higher levels of strength, stability, safety and ease of use.
Systematic: the pinnacle of Gitzo technology, craftsmanship and quality.
gitzo.us
info@gitzo.us
Gitzo™
A Vitec Group brand

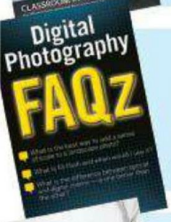

Capture the Beauty of Natural Light for Glowing, Flattering Photographs
THE LUMINOUS PORTRAIT
ELIZABETH MESSINA with Jacqueline Tobin

NATURAL LIGHT **Elizabeth Messina's book of portraits is both beautiful and inspiring.**

BOOKING IT

HOW-TO PHOTO BOOKS are often as basic as they are ubiquitous. But if you want to venture beyond composition and exposure (and do so at your own pace) a book can be your best friend. Here are six new titles that can help improve your technique—and won't put you to sleep.

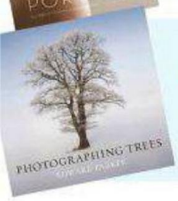
Adobe Photoshop CS6 Classroom in a Book **by Adobe Creative Team (PEACH PIT PRESS) $55** The official guide from Adobe's team of engineers, designers, and editors, this tome breaks down the software's newest version into 14 lessons, with instruction on common editing and design tasks.



Digital Photography FAQz **by Jeff Wignall (JOHN WILEY & SONS) $30** Our contributing editor's latest book on digital photography answers 365 Frequently Asked Questions—one for each day of the year. Ideal for someone who likes to learn by doing, this is a handy field guide for photographers teaching themselves.

Live Music and Concert Photography **by J. Dennis Thomas (FOCAL PRESS) $30** A *Spin* and *Rolling Stone* photographer gives advice on getting great images in any of the (often awful) conditions in which music photographers work. Includes tips on pleasing photo editors and etiquette in the pit.

The Luminous Portrait **by Elizabeth Messina (AMPHOTO BOOKS) $30** This wedding photographer's images regularly grace celebrity magazine covers. Her book showcases the inspiration behind her beautifully exposed portraits, and proves you can make stunning pictures with only a film camera and natural light.



Photographing Trees **by Edward Parker (KEW PUBLISHING) $30** The author has photographed trees all over the world; he currently teaches a similarly named course at the famed Royal Botanic Gardens, Kew, in London. His tips run the gamut from wide-angle vistas to macro shots of tree bark.

DAN BRACAGLIA (MAIN IMAGE)

NEWS FEED

> DxO Optics Pro, recently out in version 7.5, now runs in 64 bits.

> Think a fresh new Leica is pricey? Try a really old one. An O-series Leica, from the company's first batch of 31 cameras, recently sold at auction for €2.16 million (about $2.8 million).

> Fujifilm has announced a new wide-angle conversion lens for its X100, which will take the fixed 28mm lens (35mm equivalent) to a wider 19mm (28mm equivalent).

> Speaking of Fujifilm, Novoflex has announced a series of adapters that will allow X-Pro1 shooters to mount lenses from Canon, Nikon, and Leica, among others.

> Leica's new b&w camera (p.22) will soon have more company. Arizona-based Spectral Instruments is developing one with a giant 112MP CCD.

TOOLBOX

ROBO PAN

Turn your iPhone into a remote-control camera

ONE OF the coolest photo gadgets initially funded through Kickstarter, the Motrr Galileo ($130, direct; motrr.com) is a tripod-mountable, remote-controlled panning and tilting robot for iOS devices. You'll need two such devices—one to mount to the Galileo, and another to control it. Use it to shoot smooth video pans or time lapse photos.

Since it can be operated from afar, you can also use it for surveillance, baby monitoring, or souped-up video chat. There's a published SDK that lets developers create or add Galileo functionality into their apps, so the possibilities are endless.

68%

of mothers aged 18–29 shoot with digital cameras multiple times per week.

37%

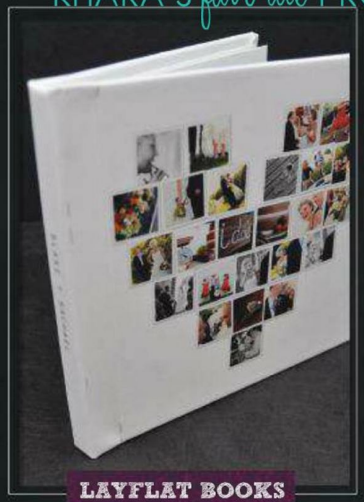
of women the same age without kids use their cameras as often.

SOURCE: INFOTRENDS 2012

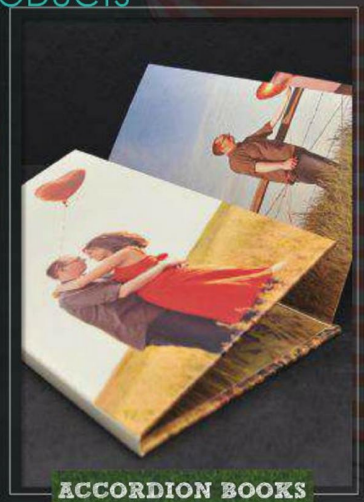
KHARA PLICANIC

Wedding Photographer **from** Lincoln, Nebraska

KHARA'S *favorite* PRODUCTS



LAYFLAT BOOKS



ACCORDION BOOKS

GALLERY MATS

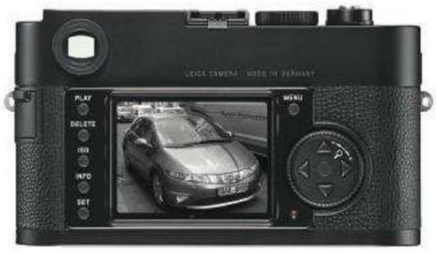
FRAMED PRINTS

SEE HOW KHARA
USES MPIXPRO PRODUCTS
visit mpixpro.com/KharaPlicanic

mpixpro

Where discerning photographers belong.

AMATEUR PRO



BLACK OPSTER

Leica M Monochrom
$7,950, street, body only
us.leica-camera.com

Leica's M Monochrom captures images solely in black-and-white

YOU CAN TELL it's a Leica at 25 yards—even though it has no Leica name, no Leica logo, no model number. It doesn't even have a red dot. Then, when you get up close, you might just make out, in tiny engraving, the designation "Monochrom" on the hot-shoe—where it will be hidden when you attach the accessory viewfinder.

Rumored for many months before its introduction, the Monochrom is rather a strange idea: a consumer camera that captures exclusively black-and-white images. Each of its sensor's 18 million pixels reads luminance only; there are no red, blue, and green filters to sort out color information.

In theory, this should lead to increased image quality compared with a color sensor of the same pixel count. For one thing, the pixels could record image dots on a near one-to-one basis, unlike color sensors, which must extrapolate color information and hence produce significantly fewer image dots than their pixel counts. Second, with no RGB filters over them, the pixels of a monochrome sensor will receive more light, for a possible boost in both sharpness and noise suppression.

The Leica M Monochrom's switches, dials, four-way controller, buttons, and 2.5-inch, 230,000-dot LCD are exactly the same as those on the M9 and M9-P.

A company representative told us that the camera is aimed at a core constituency of Leica users: those who favor black-and-white imagery over color and who frequently resort to converting color files to monochrome.

The custom-designed Kodak CCD sensor, like the 18MP sensor in the Leica M9, has microlenses that, at the outer edges, are canted inward for better recording of oblique light rays. Like the color sensor, the Monochrom's sensor has no low-pass (moiré) filter. Sensitivity gets boosted to a range of ISO 320 (the sensor's native speed) to 10,000, with a "pull" speed of ISO 160.

Anyone familiar with the Leica M9 or M9-P will be at home with the Monochrom—aside from the new sensor and processor, it is the exact same camera—the classic, manual-focusing, tank-tough rangefinder.

The camera can capture JPEG and RAW files in the Adobe DNG format. While the camera provides no JPEG profiles for different b&w "looks," you can apply sepia, cool, or selenium toning effects to the images. The camera will be bundled with both Adobe Lightroom 4 and, appropriately, Nik Silver Efex Pro 2, the highly regarded plug-in that can apply various film profiles to monochrome images.

As expected, the Leica M Monochrom is not for the faint of wallet: $7,950, street, body only.

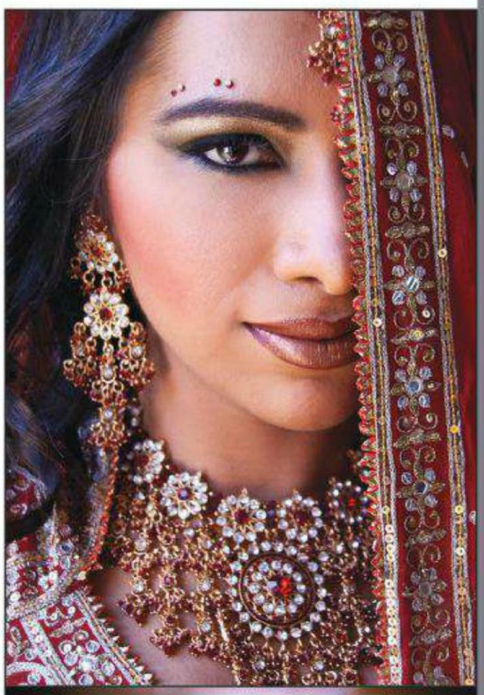
—Dan Richards

STAN HORACZEK (LCD IMAGE)

POPULAR PHOTOGRAPHY

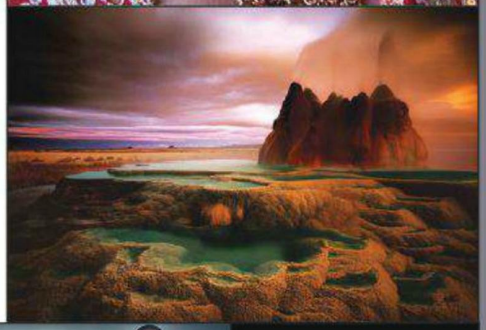
2012 / 19th Annual • Readers' PHOTO CONTEST

The 19th Annual *Popular Photography* Photo Contest gives photographers the opportunity to win prizes and have their work recognized in the January 2013 issue of *Popular Photography*, the largest photo magazine in the world, as well as on our website, **PopPhoto.com**.



Categories

- ACTION/SPORTS
- ANIMALS
- CITIES/ARCHITECTURE
- LANDSCAPE/NATURE
- OBJECTS/STILL LIFE
- PEOPLE
- PEOPLE'S CHOICE - *PopPhoto* readers will vote for their favorite image! All entrants will automatically be entered in this category.



Submissions

The competition is open to work produced from June 2011—October 2012. All submitted artwork should be of reproduction quality.

ENTRY FEE: $10
DEADLINE: October 22, 2012

Credits (clockwise): Tamiz U. Rezvi, Rodney Lough Jr., Erich Chen, Ricardo Mejia, Kathy Hicks, Ricardo Pradilla

For a complete set of contest rules, prizes or to enter, please visit: **www.PopPhoto.com/readerscontest2012**

SPONSORED BY SanDisk

The Readers' Contest, sponsored by *Popular Photography* magazine, a publication of Bonnier Corporation, is open only to individuals who are sixteen (16) years or older at time of entry, excluding residents of Cuba, Iran, North Korea, the province of Quebec, Sudan, Syria, and any other jurisdiction where this contest is prohibited by law. To enter and for complete Official Rules, visit http://www.popphoto.com/readerscontest2012 between May 14, 2012 and October 22, 2012.

LONG LIVE MAKING WAVES

LONG LIVE IMAGINATION

What will you imagine with the EOS 7D and EF lenses? Long Live Imagination.

©2012 Canon U.S.A., Inc. Canon and EOS are registered trademarks of Canon Inc. in the United States. IMAGEANYWARE is a trademark of Canon. All Rights Reserved.

You inspired a Ron Howard production with your photographs. How will you inspire Ron's next project? Learn more at youtube.com/imagination

Canon

imageANYWARE

Advertisement

CATCH THE ACTION WITH CANON LENSES

Canon

Photos by Stephen Frink, Canon Explorer of Light

Underwater shot: Taken with a Canon EF 14mm f/2.8L II USM lens
Swimmer doing the butterfly stroke: Shot with a Canon EF 100-400mm f/4.5-5.6 L IS USM lens

©2012 Canon U.S.A., Inc. Canon and EOS are registered trademarks of Canon Inc. in the United States. All Rights Reserved.

SHARE

CONVERSATION, INSPIRATION, CONTESTS, AND YOUR QUESTIONS ANSWERED

CONFLICT ZONE SHOT IN INFRARED

26

TENDING A PHOTOGRAPHY ARCHIVE

28

READERS' BEST SHOTS THIS MONTH

36

PHOTO CHALLENGE

MIXED MASS

An American in Paris gets a cathedral's color

SHUFFLING ALONG velvet ropes while touring the cathedral of Notre Dame in Paris, Undine Vinh, a homemaker from Albany, NY, was determined to get a great photo. But with no hunchbacks in sight, and the faithful masses crammed in the pews, she would need luck, skill, and a bit of effort.

"They were very picky with who gets to take a picture and you only have a moment," Vinh says. "I had to struggle through a lot of people who wanted to take their shot."

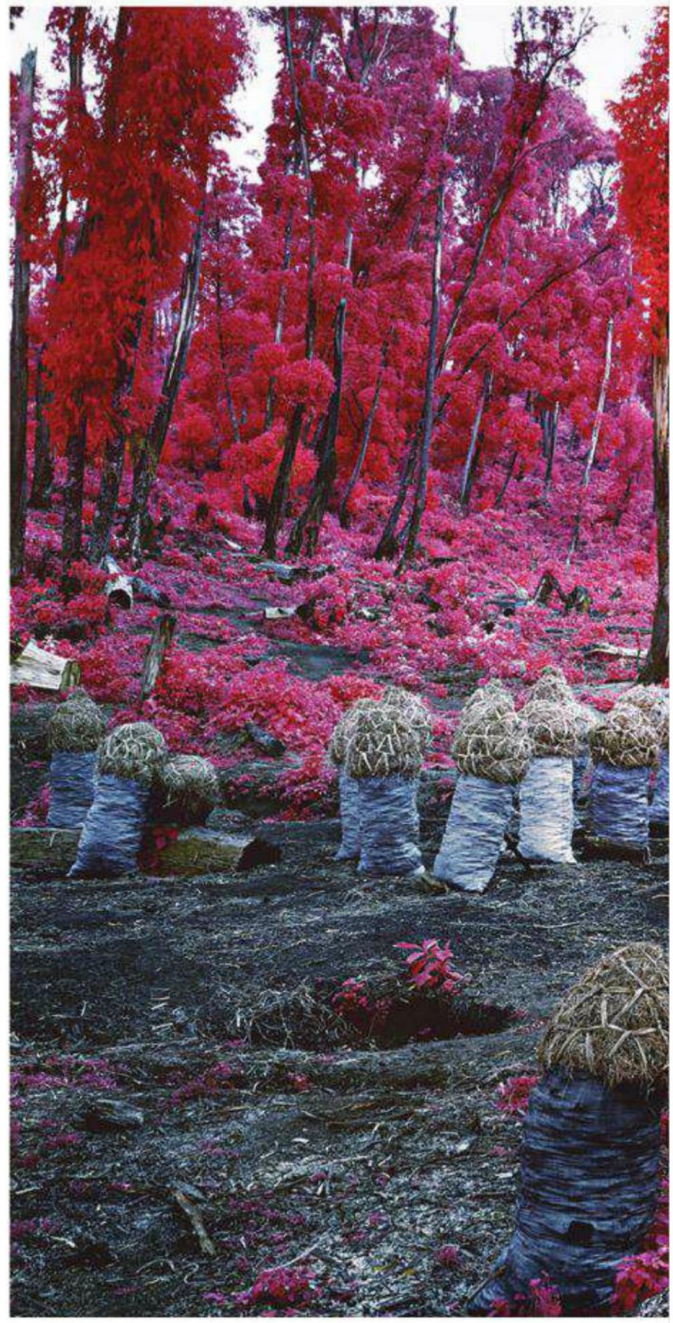
Further hampered by the mass in progress, she broke out a fast, wide-angle lens, zoomed out to 11mm, and took a low angle. Her exposure (1/30 sec at f/5, ISO 3200) and auto white balance managed the combination of sunlight through stained glass and the distinct color temperatures of lamplight to win our mixed-lighting challenge.

—Matthew Ismael Ruiz

UNDINE VINH

NEXT PHOTO CHALLENGE

This month's Quick Tip (page 44) gives hints for shooting shadows. Send us your own photo with a shadow as its subject (not just an element in the scene) by July 31, and you could win $100 and your photo here. Rules are at PopPhoto.com/contests.



Infrared View

A different light on African conflict

ARTIST Richard Mosse, 32, never dreamed he would photograph in the Congo. Nor did he anticipate working with infrared film. But in 2009, when he learned that color infrared film was slated to be discontinued, he saw a chance for a new way of working, and the two came together. "I was interested in [the film's] original purpose as a military tool, but I was also drawn to its peculiar color palette," he says. "I wanted to use it as a way of thinking through this conflict and the rules and conventions of war photography."

In January 2010, he began the first of five trips to the Democratic Republic of Congo in two years, working with local media fixers and human-rights activists. "Access was

Richard Mosse's *Infra* is available from Aperture/ Pulitzer Center on Crisis Reporting.

MARK MCNULTY

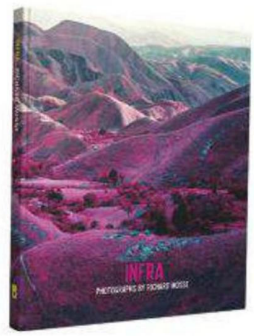
RICHARD MOSSE / INSTITUTE / JACK SHAINMAN GALLERY (3); *INFRA* BY RICHARD MOSSE (APERTURE, 2012) (BOOK)

***Infra* was shot mostly in the North Kivu region of Eastern Congo. See more of his work at richardmosse.com**

tricky," he says, "as it involved building up a relationship with each particular rebel group" before meeting secretly in elevated jungle highlands.

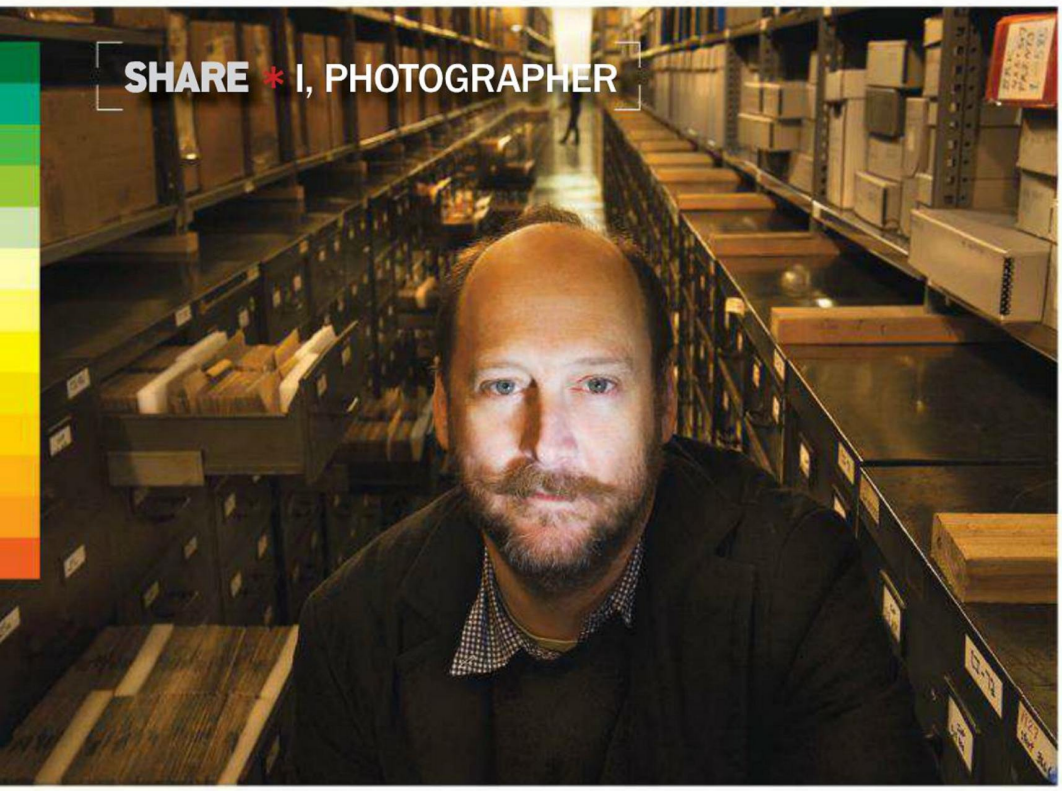
Using the film in his 8x10 and 6x7 cameras proved challenging. The film, he notes, is highly heat-sensitive, meant to last just seven days at room temperature—and freezers are rare in the region.

Even harder? "You're always under threat of ambush, especially when walking across front lines, in unstable zones of conflict deep in the jungle," he says.



His photos, exhibited at Jack Shainman Gallery in New York, paint a portrait of paramilitary conflict in the Congolese region unlike what the world typically sees. "The heart of the project was a sense of an unseen predator, a very real threat of horrific massacres and sexual violence, which is sadly very common in eastern Congo," says Mosse. His film "produced nightmarish, disturbing landscapes which are also very beautiful."

—Lori Fredrickson



Art Archivist

Ken Johnston of Corbis holds a key to photo history

Ken Johnston, historical director of photography at Corbis Images, works a few weeks each year in a film-preservation facility in a 150-acre former limestone mine that is home to some of the world's most iconic news, entertainment, and commercial photos.

What does your job entail? I edit images that photographers submit; occasionally I work with the sales department. For example, when a celebrity dies, photographers will realize they have film from decades ago, and we have to rush to get it online. I also work with photographers and historical societies to see what they have. We have a massive number of negatives that were part of the Bettmann/United Press International collection. Most are stored at our facility in a mine in Pennsylvania, where I work a few times a year for a week at a time—I'll look through the files and do research, or take photographers and scholars through the collection.

How did you wind up here? I've been with Corbis for 16 years; for the 10 years prior to that I was at the Bettmann Archive, which Corbis bought in 1995. I went to art school, but I had to have a job, and Bettmann was a good fit.

How has it changed? We used to write orders by hand and go through filing cabinets of prints, but five years after Corbis bought Bettmann, the business all went online. There has also been a change in how we use photography: There is much more in circulation, and much more access to it. To see the images, you used to need a project and money, but now anyone can go online and see what we have.

What is stored in the mine? Between UPI and Bettmann there are about 11 million prints and negatives, and Corbis has purchased several million more images. There are multiples of many older prints because we used to make three copies for each image; we have more than 8 million unique images. UPI had photographers shoot the same subjects, so there are many similar images and a lot of minor news events—we store them and scan when we need them.

Any surprising finds? Before Weegee was famous, he was a darkroom employee at Acme, which was part of the United Press. He took a lot of photos while he worked there, and sometimes we'll find an unknown work of his. There's a very famous photo of his of the crowded beach at Coney Island—we have that and all of the outtakes. News-photo agencies in the first half of the 20th century treated photographers like technicians, and 90 percent of these images are anonymous, so it's not often that we'll find a name like Weegee in the UPI collection. The photo archive is very abstract—it's organized by sequence and number, not by theme, so there's no relationship from one photo to the next in the drawers. It's like a huge, beautiful, and strange art installation of so many photographers' work.

Does it make you want to photograph? I love the overwhelming physical nature of the archive, and it strongly appeals to me artistically. But I've never been too interested in creating my own photos. I think part of that is because I see the world though other people's eyes all day long—being around so many images, I feel too much competition.

—Interview by Kathleen Davis

SCOTT GOLDSMITH, SCOTTGOLDSMITH.COM

Constant Change

I was surprised to see the cover of the first issue of Pop Photo in your May 2012 issue. I have both the first and second issues and have read them both from cover to cover. It is surprising to find how much things have changed, and how much your commitment to photographers has remained the same. I am pleased to see that the title *Popular Photography* remains, since after all, what we are discussing is "writing with light," whether it is in silver, silicon, or Bitumen of Judea.

Gordon Brown
Rochester, NY

TIME EXPOSURE • MAY 1937

Popular Photography

A Milestone

May marks the 75th anniversary of our debut issue

75 YEARS AGO

TALK ABOUT a step backward. I was taken aback by the black-bar censored photo on page 108 (Time Exposure, May 2012). Not what I would expect from a photography magazine. I guess we won't be seeing nude imagery from photography icons such as Sally Mann and Jock Sturges in *Popular Photography*. Very disappointing!

Glen Mitchell
Miami, FL

IN YOUR May issue, in Time Exposure, you reproduced a burlesque photo with a censorship bar across the woman's breasts. The accompanying caption stated "it was illustrated with semi-nude shots we have to black-bar today." Not that I care one way or another about the black bars, but I wonder what you meant by the phrase "we have to." Does someone or something tell you to do this? If you did not, would it be illegal? Or is it just immoral?

Steven Grueber
Denver, CO

EDITOR'S NOTE: The editors decided to add the black bar to a photo originally published in *Popular Photography* in 1937 because we feared that running a topless photo would have gotten the issue pulled from distribution by some retailers, school libraries, and other outlets. (And we recalled your complaints about Tupac's rude gesture.) Why not simply omit the image? To highlight one of the ways in which Pop Photo—and the culture in general—has changed in the past 75 years.

IN THE May issue (Letters), Joshua Niles says he "was really turned off" by the article on postprocessing of digital images in the March issue. He has apparently never seen the markup of the Ansel Adams print "Moonrise, Hernandez," which is extensively post-processed. Many images need manipulation to reach the photographer's ideal. I saw the markup in an Ansel Adams display at the George Eastman House museum in Rochester, NY. It was far beyond my meager capabilities in the darkroom, but I could potentially come close on the computer. Postprocessing is frequently needed for a host of reasons. Yes, you can go far beyond "normal," but even that—like all art—is in the eye of the beholder. And much of it could be done in a darkroom.

Jeff Guerdat
Rochester, NY

DAN BRACAGLIA

POPULAR PHOTOGRAPHY

HOW TO CONTACT US Address your questions or comments on editorial content to Popular Photography, 2 Park Avenue, New York, NY 10016; e-mail, PopPhoto@bonniercorp.com. Published letters may be edited for length and clarity. We regret that we cannot answer all letters. Editorial contributions sent by mail must include return postage and will be handled with reasonable care; however, we assume no responsibility for return or safety of photographs, disks, or manuscripts.

SUBSCRIPTIONS Phone 386-246-0407 or visit PopPhoto.com/cs for all subscription inquiries. Please allow at least 8 weeks for a change of address; include both your old and new addresses, and if possible an address label from a recent issue. Subscription prices: U.S.: 1 year, $14; 2 years, $28; 3 years, $42. Canada (includes 5% GST) and all other foreign: 1 year, $31.93; 2 years, $55.94; 3 years, $77.94. Occasionally we share our information with other reputable companies whose products and services might interest you. If you prefer not to participate, please contact us at 386-246-0407 or PopPhoto.com/cs.

REPRINTS AND EPRINTS
Please contact Brian Kolb at Wright's Media, 877-652-5295, bkolb@wrightsmedia.com.

THIS PRODUCT IS FROM SUSTAINABLY MANAGED FORESTS AND CONTROLLED SOURCES.

PEFC
PEFC/29-31-58

The all new Sunpak DigiFlash 3000.

A brighter idea for your DSLR camera.

The all new Sunpak DigiFlash for DSLR cameras offers all the power you need with the features professional photographers demand. With complete TTL compatibility for Canon or Nikon DSLR cameras, the DigiFlash 3000 is perfect for portraits, groups, sporting events and stage productions. With more flash power than your DSLR's built-in flash, you can now capture spectacular shots using longer zoom lenses, with stunning results. And no more running out of flash power when you need it.

The DigiFlash 3000 is packed with professional features, such as a bounce and swivel head, providing the ultimate in lighting control and creativity. To customize flash coverage, its built-in manual zoom head matches any 18 mm to 70 mm DSLR lens. And with a low light autofocus assist, you won't miss another shot in the dark.

Big on power and high on features, the DigiFlash 3000 delivers what you need at a fraction of the price of a comparable camera-brand flash.

For more info on the Sunpak DigiFlash 3000, go to: sunpak.com/DF3000.

Taken with built-in flash

Taken with the Sunpak DigiFlash 3000

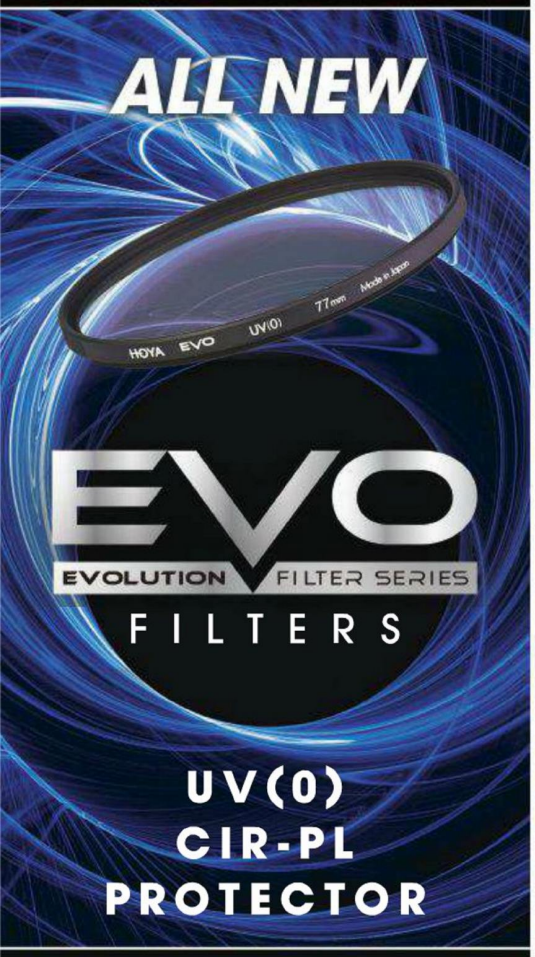
Unretouched photos

SUNPAK®
sunpak.com

New at Walmart

All product names shown are trademarked by their respective holders.

HOYA



DIGITAL SLR & HDSLR | SMC

Water & Stain Resistant
Super Multi Coating
Super Slim Frame

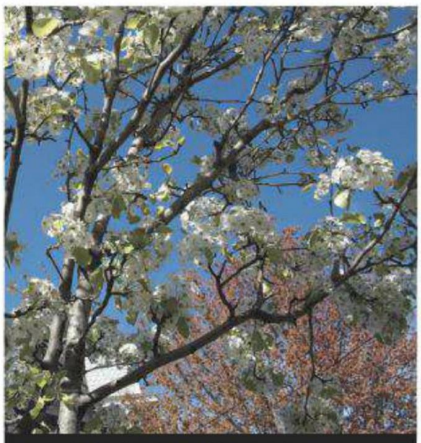
NEW HOYA EVO filters have improved (SMC) Super Multi-Coating to maintain the excellent optical characteristics of the professional lenses they are placed on. Using precision optical manufacturing and the latest optical coating technology HOYA EVO filters protect your lens, maintain image quality and help you get the shots you want.

Manufactured for
Exclusive Distribution in the USA by:

THK PHOTO PRODUCTS, INC.
Tokina • HOYA • Kenko • SLIK
7642 Woodwind Drive, Huntington Beach, CA 92647
Visit our website for more information at
www.thkphoto.com

HOYA is the registered trademark of Hoya Corporation in Japan. This product is licensed by Hoya Corporation.

Color Guards



FUJICOLOR PRO NEG LOOK

FUJICHROME VELVIA LOOK

DAN RICHARDS (2)

Same RAW file taken with a Fujifilm X-Pro1 was "developed" with two different film looks corresponding to low-contrast color neg and high-saturation slide film.

NOT TOO LONG ago we received a landscape image from one of our regular nature shooters, and one dose of its massive color saturation nearly fried our retinas. "He must have Photoshopped the &%$# out of this!" we said.

And then we noticed it was a straight scan from film. Fujichrome Velvia 50, to be exact.

Slide-film shooters past and present don't usually choose their films for color accuracy, but for a specific palette, often one that produces greater saturation than reality provides. Film manufacturers oblige them with emulsions like the famously over-the-top Velvia. And snapshooters who use color-print film have long preferred "brighter colors" (read: less accuracy) from their films.

The irony is that digital capture, seen by many as the great weapon for photo fakery, can provide much more accurate color rendition than film. In our camera tests, we measure color accuracy by photographing a Macbeth color chart with 176 discrete color patches, then using specialized software that compares the colors in the picture file with those in the original. The deviation from the original colors is termed Delta E, and we average all 176 measurements for our test result.

A Delta E below 8 is rated Excellent—which digital camera routinely score these days—and we've tested cameras with scores below 6. (The theoretical absolute limit is zero.) We consider Delta E of 12–15 to be only Acceptable, and over 15 to be wackily wild. Few films can manage a Delta E of 10, and slide films can go to 13 or even higher.

So, if people prefer saturation and snap over accuracy, why do we test it? For several very good reasons.

First, it's a benchmark: High color accuracy indicates careful design and electronic precision. Second, it provides photographers a neutral starting point from which they can deviate as they see fit, during shooting or afterward in software. (And many cameras provide selectable JPEG profiles that emulate film looks.) Finally, for some purposes—say, photographing original art works—the more accuracy the better.

Q&A

Broader Brackets

Q I was surprised to read in Tech Support (Feb. 2012) someone stating that his Canon EOS 7D had exposure bracketing of 10 stops. I checked my 7D manual and it states that it offers only +/–3 stops, and the display shows only 3 over and under. Am I missing something?

S. M. Jenkins
Jacksonville, FL

A *While autobracketing on the 7D is limited to +/–3 EV, the exposure compensation control allows variation of up to +/–5 EV. The manual doesn't explain this well, so, here's the procedure: Press the Q button for the quick menu, and use the joystick to navigate to the exposure comp scale. Once there, turn the rear command wheel to set the needed under- or overexposure. When you get to –3 or +3 EV, keep turning the wheel and the scale will scroll to –5 or +5 EV. View the full scale at this point by pressing the Set button. You can put the zero point of the autobracketing anywhere on this 10-stop scale, letting you autobracket at –8, –5, and –2 EV, or +2, +5, and +8 EV.*

Q&A

Collage Course

Q I recently made a collage using Adobe Photoshop CS5, following instructions I found online. The collage came out fine, but the pictures I uploaded for it ranged in size from 3.95MB to 11.7MB and 4752x3160 to 5185x3456 pixels, while the information for the finished collage says it is only 2.19MB with dimensions of 1795x1287. Why the size change after joining 18 large files into one collage?

Gail Riba
Wimauma, FL

A *In Photoshop, the canvas onto which you drag and drop your images will dictate the final resolution of your collage. Accordingly, you should begin by making a new blank document that's at least as big as the maximum size you wish to print. As you drag and drop high-resolution images onto the document, you will most likely have to shrink them down to fit, decreasing their resolution. Your somewhat odd file dimensions (it's close to 4x6, but not quite) must have been present when you started your collage. (If you don't input your preferred dimensions, and you have an image copied to your clipboard, Photoshop will default the new document to the size of the image you've copied.)*

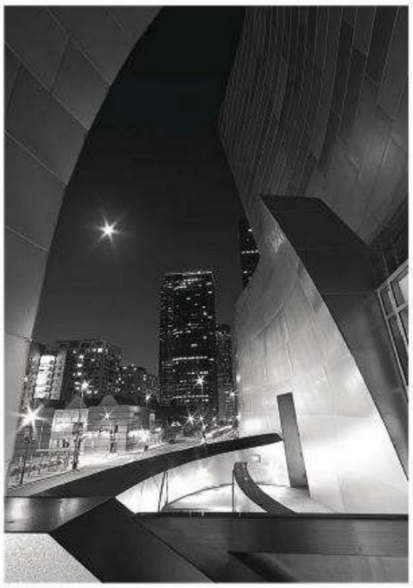
tamrac
Holds a Laptop
Evolution Series
Tamrac's Evolution Series backpacks provide an unprecedented level of versatility. With their unique harness system, the Evolution Series backpacks can be carried three ways while Tamrac's Triple Access System™ provides three ways to access your gear. In addition to a DSLR with a lens attached, the Evolution 9 also carries a laptop, tripod, and other accessories and personal items.
Evolution 9
model 5789
3 ways to Carry
Sling Pack on Right Shoulder
Backpack on Both Shoulders
Sling Pack on Left Shoulder
3 ways to Access
Left Side Access
Front Access
Right Side Access
For a FREE 88 page Color Catalog, call toll-free
1-800-662-0717
Visit our website
www.tamrac.com
Like us on Facebook
facebook.com/tamrac.inc
tamrac
PHOTO, LUGGAGE & COMPUTER CASES

Contrast in Light

This month's winners capture a wide range of tones

MONTHLY PHOTO CONTEST

Want to enter? Get the official rules and upload your images at PopPhoto.com/contests.



3rd Place $100 Prize

MICHAEL BANDY, 30, DISPATCHER, PICO RIVERA, CA Late at night, it is fairly easy to keep people out of the frame—the tough part is the exposure. But I always shoot RAW, and here it allowed me to recover the shadows without blowing out the highlights. I love the contrast of curves and straight lines. I really have the architect, Frank Gehry, to thank—the Walt Disney Concert Hall never fails to inspire. **TECH INFO: Nikon D300S with Sigma 10–20mm f/4–5.6 EX DC lens on Giottos tripod and ballhead; 30 sec at f/18, ISO 200. Exposure and b&w conversion in Adobe Photoshop Lightroom 3; blur, sharpening and noise reduction in Photoshop CS5; contrast in Nik Color Efex Pro.**

2nd Place $200 Prize

GABRIELE FERRAZZI, 29, SYSTEMS ADMINISTRATOR, ROME, ITALY I had seen the NgoroNgoro crater once before, and was inspired by the incredible art of its wild nature. This September morning, as I jumped into the 4x4, I was sick. But not even a bout of Dengue fever was going to make me miss this opportunity. I had a harder time balancing highlights and shadows. **TECH INFO: Canon EOS 7D with Sigma 10–20mm f/4–5.6 EX DC lens; 1/60 sec at f/6.3, ISO 200. Converted to TIFF with Adobe Camera Raw; minor edits in Photoshop CS5.**

Whether you're a Memory Keeper or a Pro,

we have your card.

Kingston® has the Secure Digital High Capacity card you need, whether you take photos for a living or for your family scrapbook. They're available in Class 4 and Class 10, so there's one that's ideal for your camera and shooting style, and they're backed by a lifetime warranty, free technical support and legendary Kingston reliability.

Visit **kingston.com/us/flash/sd_cards** to learn more or order from one of our etail partners today!

Kingston TECHNOLOGY

©2012 Kingston Technology Corporation, 17600 Newhope Street, Fountain Valley, CA 92708 USA. All rights reserved. All trademarks and registered trademarks are the property of their respective owners.

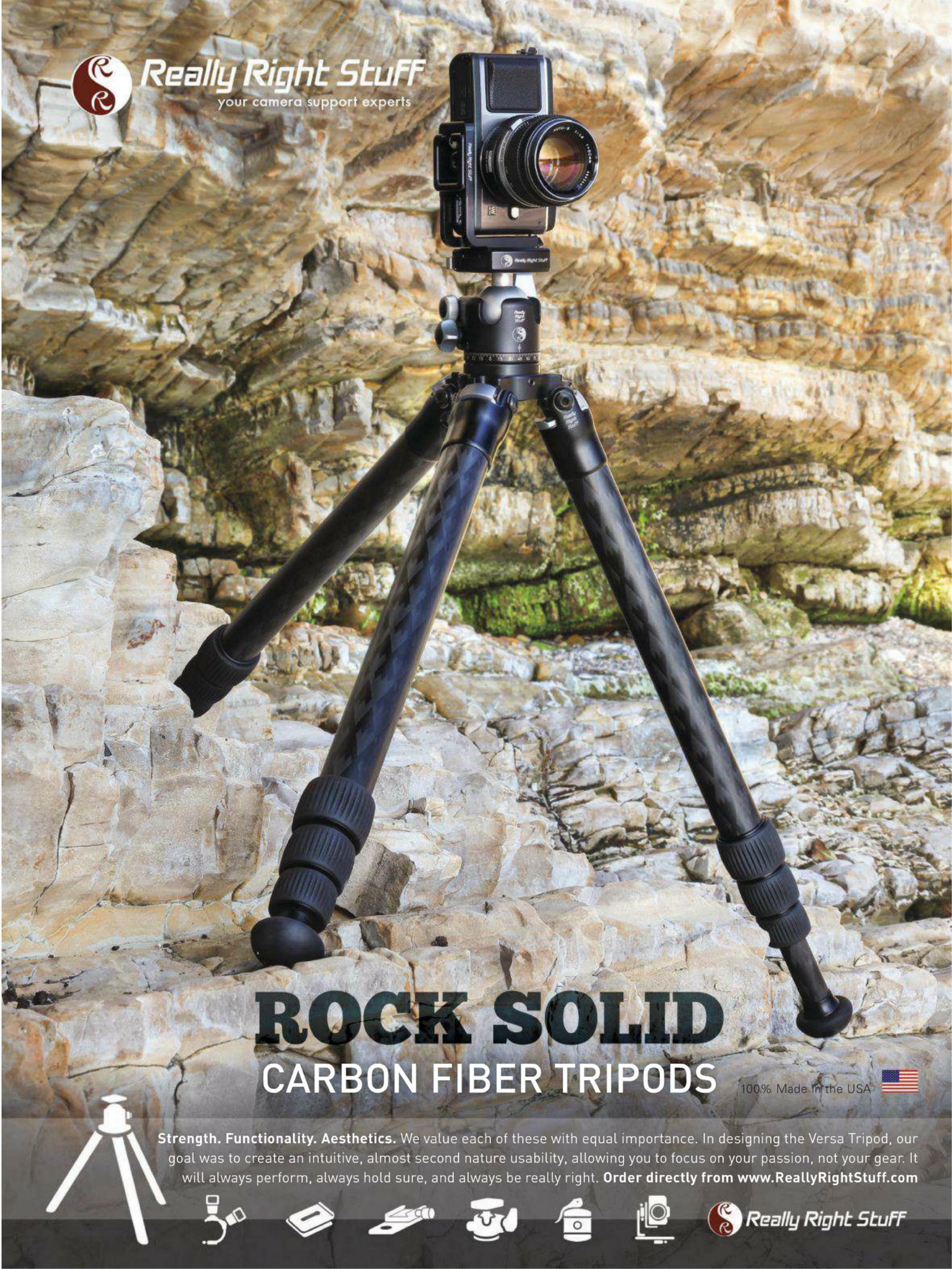
ADORAMA amazon.com B&H BestBuy.com J&R TigerDirect.com

1st Place
$300 Prize

NAOMI RICHMOND, 19, STUDENT, MELBOURNE, AUSTRALIA

People are my favorite thing to shoot—I love capturing the essence of a person, or a character. The "dust" shown here is a yellow powdered paint. I wanted it to be an extension of the model, rather than a distraction. This shoot was for a series where I focused on altered states and consciousnesses. The idea for this photo, "The Madman," was to capture something abstract: madness and/in youth, his conscious and unconscious self.

TECH INFO: Nikon D7000 with 50mm f/1.8G AF-S Nikkor lens; 1/3200 sec at f/1.8, ISO 100. Contrast adjusted in Lightroom 3.


Really Right Stuff
your camera support experts
ROCK SOLID
CARBON FIBER TRIPODS
100% Made in the USA
Strength. Functionality. Aesthetics. We value each of these with equal importance. In designing the Versa Tripod, our goal was to create an intuitive, almost second nature usability, allowing you to focus on your passion, not your gear. It will always perform, always hold sure, and always be really right. Order directly from www.ReallyRightStuff.com
Really Right Stuff

HOW

EXPERT TIPS AND TECHNIQUES FOR BETTER PHOTOS

MAKE A STATEMENT WITH SHADOWS AND LIGHTING 44

TRY ZOOS TO WORK ON WILDLIFE 46

SHOOT TETHERED IN LIGHTROOM 48

52

CREATIVE THINKING

SPA TREATMENT

In uncharted waters, it helps to have a guide

WHEN TRAVELING, one of the most elusive things to capture in an image is the authentic character, emotion, and energy of a location. For professional storytellers, it's not enough to just show up and shoot wide.

Photojournalist and documentary filmmaker Ami Vitale knows that long before she releases the shutter, she needs to understand her subjects, and they need to understand her. "My job is not about making beautiful images," she says. "It's about getting close to people, listening and looking intimately at life and the world we live in."

In 2010, while scouting another story, Vitale visited the Széchenyi Baths in Budapest, Hungary.

Montana-based Ami Vitale posts her work on the web at www.amivitale.com.

AMI VITALE

She recognized an opportunity to show the connection people there have to the beautiful spas, but because the location was new to her, she also knew a little preplanning was necessary.

Upon arrival, step number one was to ask permission. (It's a lot easier to concentrate on photography when you've got carte blanche around people in swimsuits!) To arrange this, Vitale had asked a friend, a native of Budapest, to play the role of fixer: The friend explained what Vitale was doing and obtained permissions of her subjects, along with e-mail addresses and photo releases.

"Without her, I never would have gotten these [types of] images. She helped make the atmosphere joyous," Vitale says.

Because she had planned ahead, the photographer also knew to be there as the sun came up over the eastern rim of the spa. She positioned herself at the opposite edge of the pool and was ready to shoot into the light.

The scene is anchored by the standing woman on the left facing the sun on the right, with the curve of the pool's edge and the buildings in the background framing the bathers in the center. The scene draws you in, making you feel as if you're about to step into the pool, too.

"The technology is there to make everybody feel like a great photographer," Vitale says. "However, it's not enough just to travel and take pretty images. You have to go deep and show something original and unexpected, something that teaches and surprises."

Vitale's approach reminds us that anyone can take a picture. Especially for traveling photographers, it takes planning —and time—to make a great one.

—Laurence Chen

Toned Down

Is "natural" color always better?

Eduardo Romero shot with a Bronica GS-1 with 50mm Zenzanon-PG lens at about 1 sec and f/16 on Kodak Ektar 100. He made adjustments to a scan of the negative in Adobe Lightroom 3.

EDUARDO ROMERO

WE DIDN'T so much fix Eduardo Romero's study of Torrecilla Baja, Puerto Rico, as we did reinterpret it. The Fix It team wanted the landscape to look more realistic, so we set about reworking a file of the photographer's scan of his original negative.

After first duping the background layer in Adobe Photoshop CS6, we added Vibrance (which brings up saturation only in the less-saturated colors), then made a Curves layer with a mask to darken only the sky. In yet another Curves layer with a mask, we darkened the rocks by a lesser amount. An overall Curves adjustment pulled out a green color cast that was most evident in the rocks. Then, we made a final Curves layer, and added a subtle S-curve boost to the overall contrast.

Total time fixing: 20 minutes.

Prefer the more saturated look? We discuss it this month in Tech Talk (p. 34). *—Dan Richards and Debbie Grossman*

PHOTO GLOSSARY **CHROMA KEY COMPOSITING**

ALSO CALLED chroma keying or green-screening, this technique of layering a video or still subject on different background requires the subject to be captured against a green (or sometimes blue) background. You then strip out the green background in software, leaving your subject floating on a transparent layer that can be composited over a different background. Its most common usage? The broadcast-news weather forecaster, who appears to be standing in front of a map but is filmed against a green background. The technique is challenging in that the green backgrounds (or suits—see page 44) must be uniformly lit and perfectly exposed, with no wrinkles, shadows, or over- or underexposure that could prevent easy and seamless compositing.

POPULAR PHOTOGRAPHY american PHOTO present

SONY
make.believe

the 2012 election: a photo challenge

© Matthew Jordan Smith, Sony Artisan of Imagery

GRAND PRIZE

WIN A TRIP FOR TWO TO NYC AND HAVE YOUR WORK SHOWCASED AT OUR GALLERY EVENT!

This year, Americans will once again be asked to decide who will lead our country for the next four years. With campaigns stretching from the largest cities to the smallest towns, Americans will come out in droves to take part in it and have their voice heard. Since photography is the one true universal language, Sony, *Popular Photography* and *American Photo* are challenging our nation to document this historic election year with pictures. Sony's Artisans of Imagery, as well as the population at large are invited to participate. With the ability to capture moments in time and tell a story without narrative, no medium is more powerful than photography.

categories

Portrait
Civic Pride

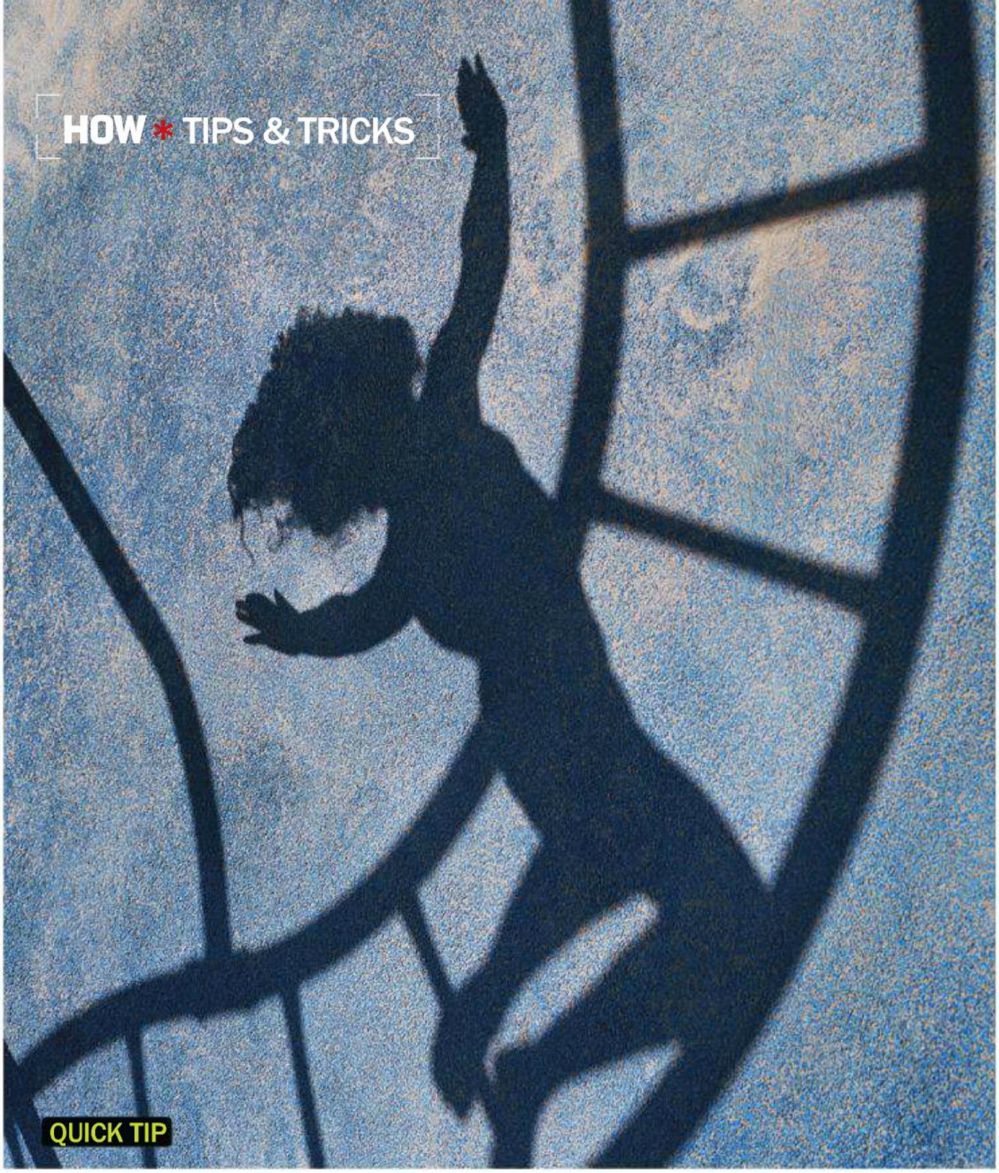
Americana
Photo Journalism

Humor
Atmosphere

Six (6) FIRST PRIZE CATEGORY WINNERS: SONY NEX 5 Camera w/ 18-55mm Lens

FREE TO ENTER!
SUBMIT YOUR WORK BY SEPTEMBER 2nd
To enter, go to popphoto.com/sonycontest

The 2012 Election: A Photo Challenge is sponsored by Popular Photography magazine, and is open to residents of the 50 United States and the District of Columbia, ages 18 and up. No purchase necessary to enter, void where prohibited by law. To enter and for complete Official Rules, visit www.popphoto.com/sonycontest between April 25, 2012 and September 2, 2012.



QUICK TIP

Shadow Play

Often, great subjects are strewn about you

LOOK DOWN. Wonderful photos might lay at your feet, camera-ready, in the form of the cool interplay of shadows. Says Ian White, a pro shooter based in Venice Beach, CA, "For me, shadows equal mystery."

They fascinate for the incomplete suggestion they offer of whatever is casting them. "What you can't see, but only guess at, makes shadows so enticing," he says.

In this picture, made while White was shooting photos for a childrens' bathing-suit catalog, the flying figure's body language is so perfectly articulated that it's easy to imagine the subject was a scultpure, and not a child at play on a jungle gym.

The tricky part to shadows is in nailing the exposure. Using any of the autoexposure modes often leads to an overexposed image, as your camera attempts to lighten and bring detail into the shadow. Not good. Instead, stick with manual exposure, and make sure your histogram is pushed to the left.

—Peter Kolonia

Ian White shot with a Canon EOS-1Ds Mark III and 24–70mm f/2.8L EF Canon lens at about 35mm. Exposure: 1/250 sec at f/11, ISO 100.

IAN WHITE

What's This?

Chroma Key Suit

▶ **What it is:** A body suit used with chroma key or green screen backgrounds for special effects in video compositing.

▶ **Why use it:** One reason is to make an object appear to float by compositing a green-suited actor carrying the object in front of a green background.

▶ **Which to buy?** The Savage suit shown here ($170, street) comes in three sizes in a flexible-fit fabric that eliminates wrinkles, which don't play nice with green screens.

30-SECOND SOFTWARE

MINI BRIDGE was introduced in Adobe Photoshop CS5, but plenty of users never noticed it. Tucked into the toolbar on the right side, it was difficult to find and did not offer big enough previews to make it useful. In CS6 (reviewed on page 84), however, Mini Bridge has been much improved. You will now find it running along the bottom of the screen in what resembles Bridge's or Lightroom's filmstrip view. (You can double-click to hide it for more real estate.) Its horizontal shape makes folder navigation, filtering, and searching faster. The best part? The more easily invoked large image previews—simply drag to enlarge the filmstrip and scale them up. *—Debbie Grossman*

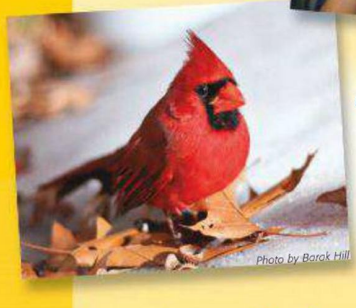
What makes MeridianPro different?

"Lab correction, on every product they offer, at **no extra charge.** Other labs I've used have moved to a non-lab-corrected workflow. I've got the latest-and-greatest software and think I do a pretty good job adjusting my images, but I still like having trained tecs at the lab give the color ajdustments I've made a second look, to tweak them if needed, for the best print possible. I think it makes a real difference."

PHOTOGRAPHIC PRINTS

True "wet process" photographic prints. Printed on Kodak® Endura Premier® professional paper. Kodak Premier Metallic paper also available.

LAB CORRECTED
8x10
ONLY
$1.49



LAB CORRECTED
11x14
ONLY
$3.99

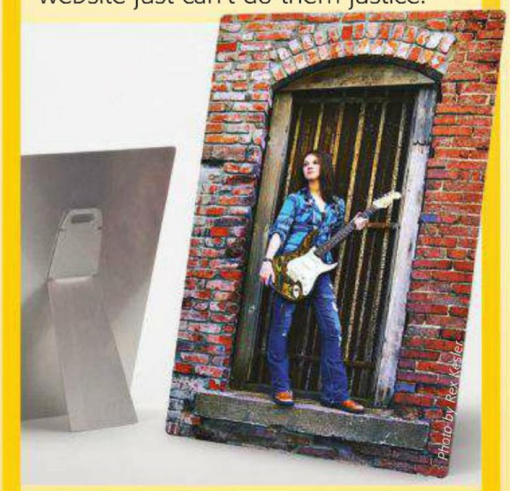
Your choice of **"Lab Corrected"** or **"No Correction"** at the same price.

8 wallets	1.75	11 x 14	3.99
4 x 6	.29	16 x 20	13.50
5 x 7	.99	20 x 24	19.99
8 x 10	1.49	20 x 30	24.99
10 x 10	2.49	30 x 40	49.99

This is only a small sample, Meridian offers over 80 print sizes, with panoramic sizes up to 120 inches. That's correct, true photographic prints, lab corrected, as large as ten (10) feet long.

METAL PRINTS

Meridian's Metal Prints have to be seen to be appreciated, examples shown in a magazine ad or on the website just can't do them justice.



- Rich vibrant color
- Durable prints without glass
- Waterproof
- 4 different finishes available
- Rounded corners
- Sizes from 5x7 to 20x30
- Various wall hanging and easel-back options available

Inks are infused directly into specially coated aluminum sheets, using high temperature and pressure. Your images take on a bright, vibrant, luminescent quality when printed on metal through this process.

SPECIALTY PRODUCTS

MeridianPro keeps adding cool new specialty products, perfect for senior packages or sport and event promotions.

PHOTO FLIP FLOPS

DOUBLE SIDED WALLETS

iPHONE CASES

KEYCHAINS
DOG TAGS
TICKETS
DRINKWARE
MEMORY MATES
TRADERS
BUTTONS
BRACELETS

Great Prints. Great Prices. Easy Ordering. It's that Simple.

www.meridianpro.com | 800-544-1370

No application process to wait for. Go to our website, sign-up, download our free ordering software and begin ordering today.

meridian Professional Imaging

ADRIAN TAVANO

The Zoo

It brings the wildlife to you

ZOOS ARE not only great places to observe animal behavior up close, but can also make a great venue for honing shooting skills between safaris. Atlanta-based photographer Laura McElroy, who shoots regularly at Zoo Atlanta, offers these tips:

- **Take advantage of cloudy days** to keep contrast and deep shadows at bay. Animals look best bathed in a soft, even light.
- **Shoot early and late.** Animals, like humans, get stressed in midday sun. Feeding time is great, but you have to compete with crowds—stake out a location early.
- **Don't fight crowds.** Ask courteously if you can step forward to get a shot. For popular animals like giant pandas, be there when the zoo opens.
- **Pick a favorite animal and specialize.** When conditions are favorable, devote large blocks of time to one species.
- **Wait for intimate behavior.** "I photographed a mother gorilla nursing her baby, and suddenly she leaned down and kissed him on the forehead," says McElroy.
- **Avoid glassed-in exhibits**—reflections are tough to beat.
- **Travel light.** Wear a shooting vest in place of a shoulder bag and leave the tripod (monopods are okay) and flash behind. McElroy's favorite lens is her image-stabilized Canon 75–300mm f/4–5.6. —*Jeff Wignall*

WHERE TO GO

Zoos Nearest to You

IF YOU LIVE NEAR A METROPOLITAN AREA, THERE'S A ZOO NEAR YOU. TO FIND ONE, VISIT WWW.OFFICIALUSA.COM/STATEGUIDES/ZOOS. SOME EVEN CATER TO PHOTOGRAPHERS. THE MAJORS INCLUDE:

- **BRONX ZOO** Bronx, NY America's largest metropolitan zoo, it offers photo ops that include large, habitat-true exhibits of Amur tigers and lowland gorillas. It also provides workshops and tripod-friendly zones. • **bronxzoo.com**
- **CINCINNATI ZOO** Cincinnati, OH The second-oldest zoo in the country offers one of the world's largest cat collections, including white lions. Its holiday photo contest is highly competitive. • **cincinnatizoo.org**
- **DENVER ZOO** Denver, CO With more than 650 species spread across 80 acres, Denver is famous for its Amur tigers, black rhinos, snow leopards, polar bears, king cobras, gorillas, and vampire bats. • **www.denverzoo.org**
- **NORTHWEST TREK WILDLIFE PARK** Eatonville, WA The park hosts unique photo tours for capturing action shots of free-roaming animals. Limited to 15 photographers per trip; tripods allowed. • **www.nwtrek.org**
- **ZOO ATLANTA** Grant Park, GA One of only four U.S. zoos that house giant pandas, Atlanta also offers nature photography classes, including nocturnal workshops and horticultural tours. • **zooatlanta.org**

GIVE US YOUR PALE, YOUR PASTY, YOUR MARGARITA-LACKING MASSES.
FROM GUARANTEED LOW PRICES, TO EASY-TO-USE PLANNING TOOLS, WE CAN ALL GET THE VACATIONS (AND TAN LINES) WE DESERVE. BOOK NOW ON ORBITZ.COM.
ORBITZ
TAKE VACATION BACK
© 2012 Orbitz, LLC. All rights reserved.

DEBBIE GROSSMAN

Time to Tether

Shoot connected to your computer for more control

TETHERED SHOOTING can be a beautiful thing—having your camera connected to a computer as you photograph brings a host of benefits.

If the monitor is color-managed, you'll be able to see a true preview of your images' color and tone. Your photos can be copied simultaneously to the computer's hard drive and to your memory card as you capture, so you'll have a backup before you even finish shooting. Since your preview is on the monitor, you'll have much more real estate for checking focus, and chimping on the larger screen lets you have a real sense of whether you've captured what you need.

Use Adobe Photoshop Lightroom 3 or 4 to capture remotely and process images as you shoot.

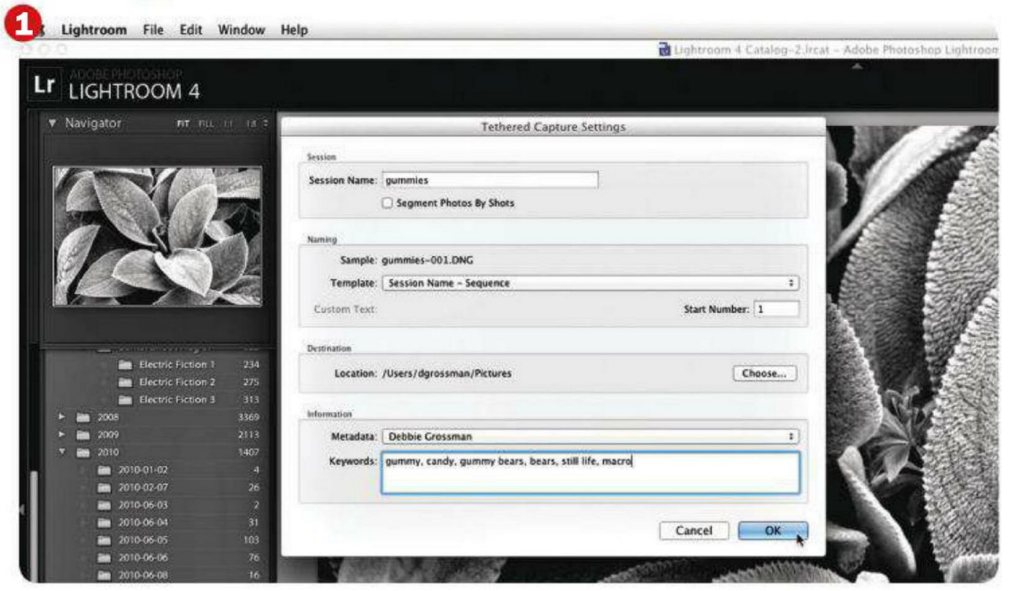
Even better, with software such as Adobe Photoshop Lightroom, you can process all of your RAW files in real time, rather than after the shoot is over.

So if you plan to do something dramatic, like the RAW and black-and-white conversion shown here, you can adjust exposure, lighting, and composition using a more accurate preview of your finished product, instead of just relying on your imagination.

SIMPLE COMPLEX

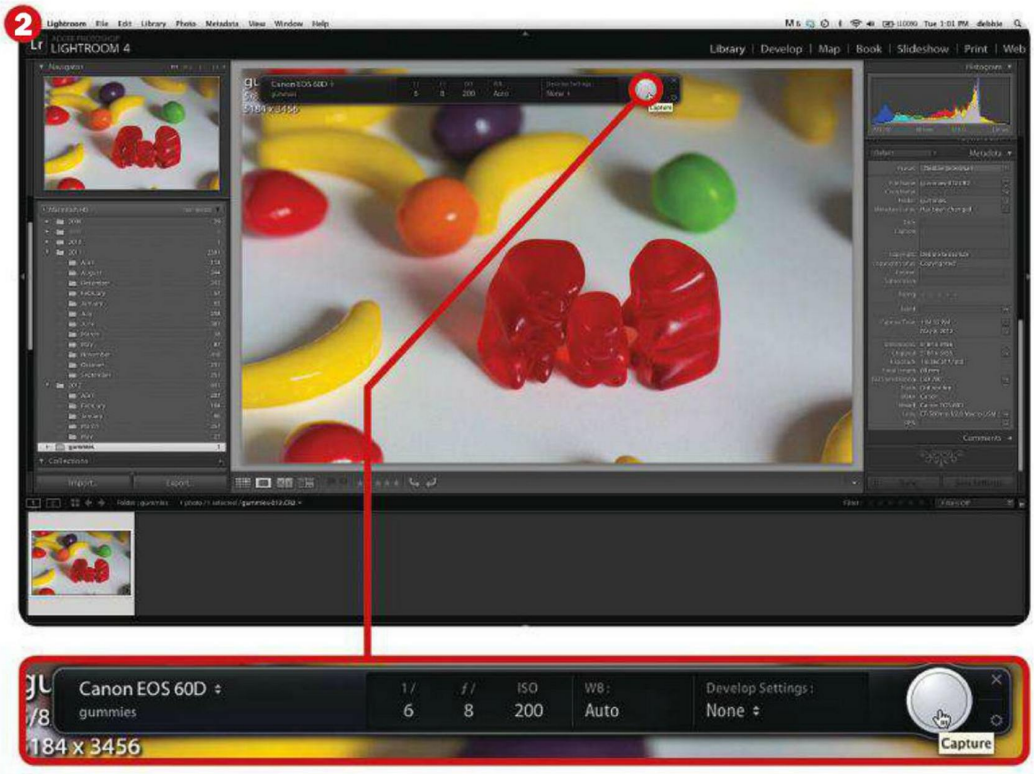
All it takes to shoot tethered is a camera you can connect to a computer (usually via USB cable), and compatible software. Try it first at home with a simple setup. If you want to shoot in the field, you can find accessories to help, from tripod mounts that support a laptop to screen hoods that hide the day's brightness.

Here is a project to get you started shooting tethered in Lightroom, plus instructions for doing a preset RAW conversion as you work. *—Debbie Grossman*



Step 1

Set up a still life with your computer (desktop or notebook) nearby, turn the camera on, and connect it to the computer. **In Lightroom 3 or 4, go to File > Tethered Capture > Start Tethered Capture.** Fill in your session name and destination. Choose your metadata template, add keywords to tag your images, then click OK to start shooting.



Firing the shutter from the computer helps you avoid camera shake.

Step 2

After tethered shooting is initiated, you'll see the tethered toolbar pop up. If your camera is awake and properly connected, its make and model will appear on the left. You'll see your exposure and white balance settings, but you can't change those from the toolbar. **Click on the shutter button to take a picture.** Your image will transfer to the computer and appear, selected, in Lightroom.

Step 3

Keep shooting until you get your exposure settings and lighting right. But don't worry too much about your composition or setup at this point. Instead, develop an image to help you execute your final product. **Click to select the last properly exposed image you shot, and switch to the Develop module.** Process the image the way you'll want your final picture to look. You can pump up vibrance, tweak your white balance, add a little vignette—everything you normally do when you work on a RAW file. To hide the tethered shooting toolbar as you work, hit Ctrl (Command) + T on your keyboard. Your tethered connection will remain active.

Step 4

Now use your current develop settings to make a Preset. **Click the plus sign (circled) in the Presets panel to do so.** Hit the Check All button to make sure all the adjustments you've made to your current image will be applied to your subsequent shoot. Name your preset, and tell Lightroom where to put it. You can create a special Tethered folder to hold your shooting presets.

Final Step

Now type E on your keyboard to go back to Loupe view in the Library, and hit Ctrl + T to bring back the tethered toolbar. **Under Develop Settings, use the pulldown menu to find and select your presets.** All the photos you shoot from now on will have your preset automatically applied, which should make it much easier to see how changing your lighting and composition will affect your final image.

1&1 MY WEBSITE

BUILDING A BUSINESS WEBSITE IS EASY.

No matter what type of business you have, 1&1 MyWebsite comes with customizable industry designs, making it easy to create the perfect website for your business. Professional text recommendations and corresponding images for your business are automatically implemented on your website as a starting point, and you can make whatever individual adjustments you need, such as changing designs, pictures, and text.

SELECT Your Business Type

CHOOSE Your Color Scheme

CUSTOMIZE Your Website With Text Pictures & More

YOU'RE ONLINE! No software installation or web design experience required.

No waiting, no worrying and no extra costs. Unlike sites that are designed and built by web designers, when you build your site with 1&1, you're in complete control. All you need is an internet connection and you can make any changes online in real time.

SFE ARCHITECTURE
Home
Portfolio
Team Profile
Services
Awards
Contact Us
Like
Tweet this page
Tweet
Welcome to SFE Architecture
From a new design to a complex restoration, you can rest assured that your project is in the right hands. Let our professional and creative approach make you a believer!
What Distinguishes Us
Learn more about our philosophy and why we stand apart from the competition.
Our portfolio

1&1 MY WEBSITE
TRY IT FOR FREE!
30 day free trial, then just $9.99 per month*

Includes a FREE .COM domain with Private Registration.

1&1®

MEMBER OF united internet

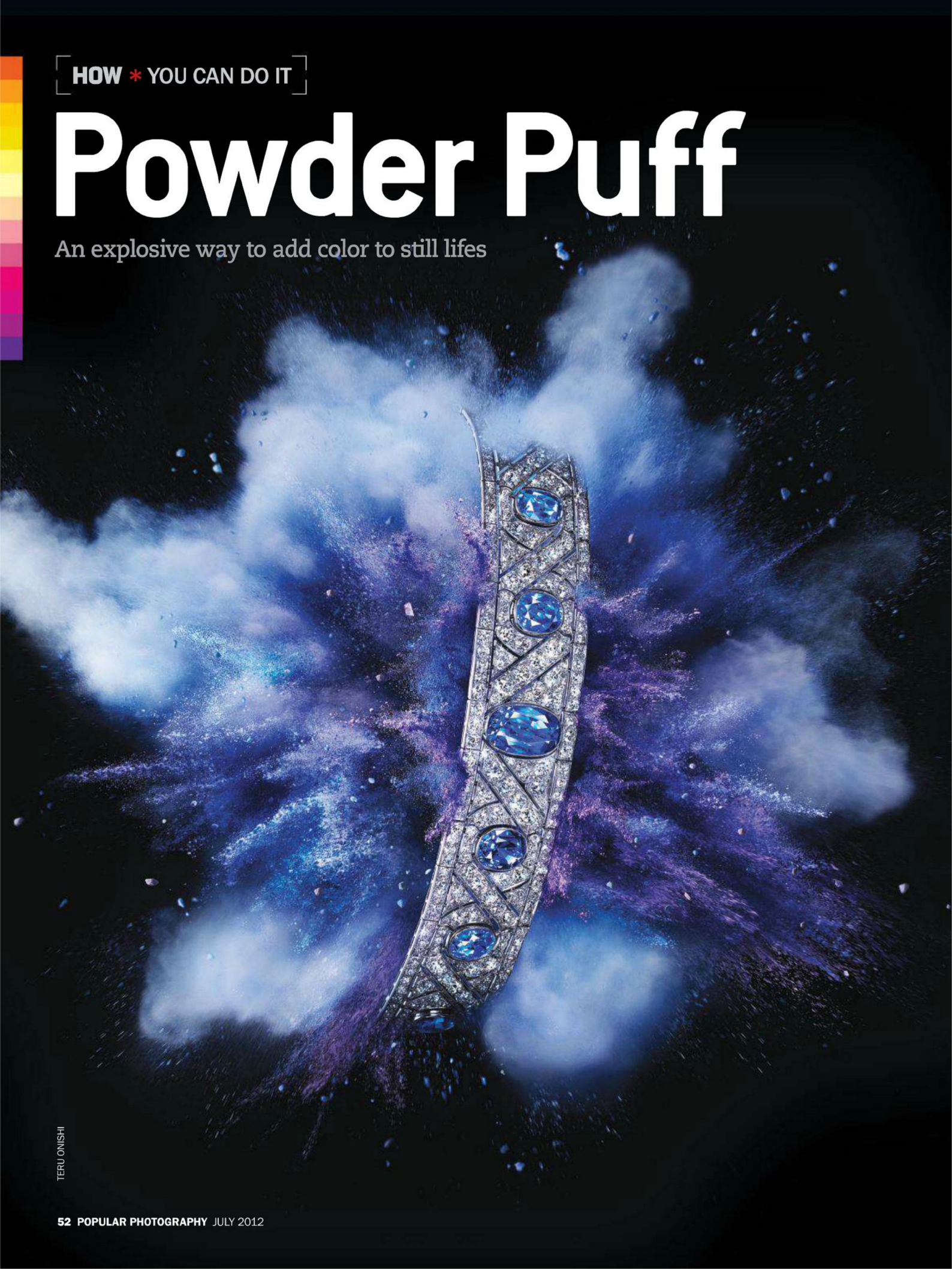
Call 1-877-461-2631

www.1and1.com

*12 month minimum contract term applies after 30 day free trial. 1&1 and the 1&1 logo are trademarks of 1&1 Internet, all other trademarks are the property of their respective owners. © 2012 1&1 Internet. All rights reserved.

Powder Puff

An explosive way to add color to still lifes



TERU ONISHI

SOMETIMES IT pays for a photographer to think *inside* the box.

In this case, that box was a clear acrylic chamber, about 4 feet square, that New York pro Teru Onishi (teruonishi.com) used to contain the exploding pigment powders that served as super-charged elements for a set of five spectacular advertising photographs for Circa (www.circajewels.com), one of the world's largest jewelry firms.

The project, which was conceived and completed over about a month last fall, was more complicated and ambitious than those we usually showcase in You Can Do It. But the photos are so eye-catching that we thought you might enjoy learning how Onishi created them. Perhaps you would even want to take on a simplified version of the project, as outlined in the steps at right.

As with most ad campaigns for luxury goods, this one drew on the talents of many creative people, including those at EquancyNo11, a brand-development agency that conceived of the project, as well as advertising agency art directors, Onishi's agent (Apostrophe), stylists, and studio assistants.

Onishi started by hiring Makato Aoki, a New York-based model builder (www.swellny.com), to construct a compressed-air pump whose air bursts would send the pigments flying. The powders sat on a perforated platform with a nozzle below attached to the compressor. Stones placed on the platform gave shape to the explosion and, for texture, the pigments were ground into different degrees of fineness.

The photographer exposed by opening the shutter and firing both strobe and air pump in total darkness. *—Peter Kolonia*

Teru Onishi shot with a Mamiya RZ67 body, a Phase One P45+ digital back, and a 90mm f/3.5 Mamiya-Sekor lens (above, top). He lit with a single Broncolor Unilite (above, middle) popped through LeeLux 400 diffusion paper (below). The strong sidelighting created shaping in the pigment explosion.

Step 1

Source and contain your pigments. Onishi recommends Kremer Pigments in New York (kremerpigments.com). To prevent the powder from coating your camera (and studio), enclose the immediate work area with plastic sheeting or an acrylic-walled chamber.

Step 2

Design and build the exploding device. A simple option would be to place the pigments on a drum's surface (painted black) and thwack them from below using your fingers.

Step 3

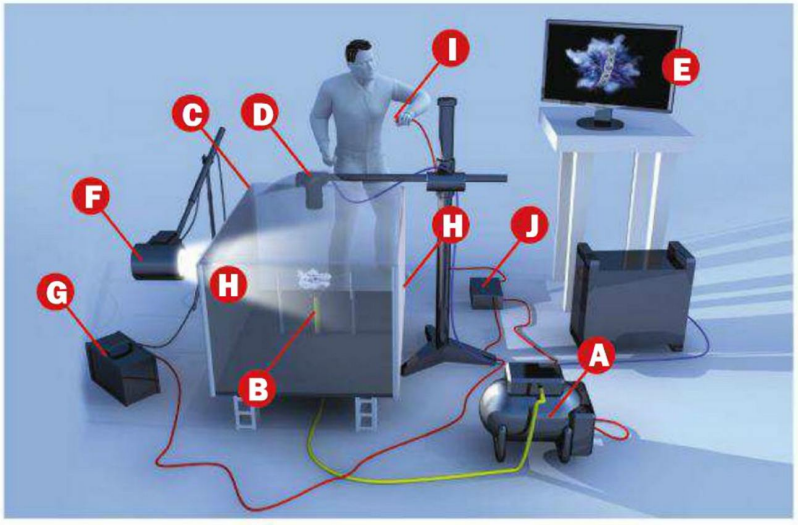
Set up. Suspend your subject above the powder using clear twine (you will retouch this out of your image later). Suspend the camera above the pigments, and place a strobe to one side. Use a low flash power to achieve flash durations of 1/5000 sec or faster.

Step 4

Work out the exposure. If you try the drum suggestion, a sound-activated flash trigger (phototrap.com) could fire the flash as the drum is struck.

Final Step

Make your exposures. Turn off the room lights and open your camera's shutter on Bulb. Shoot separate frames of the subject, the exploding powder, and then the subject and explosion together. Later in software, composite and blend the three exposures using layer masks.



KRIS HOLLAND/MAFIC STUDIOS (ILLUSTRATION)

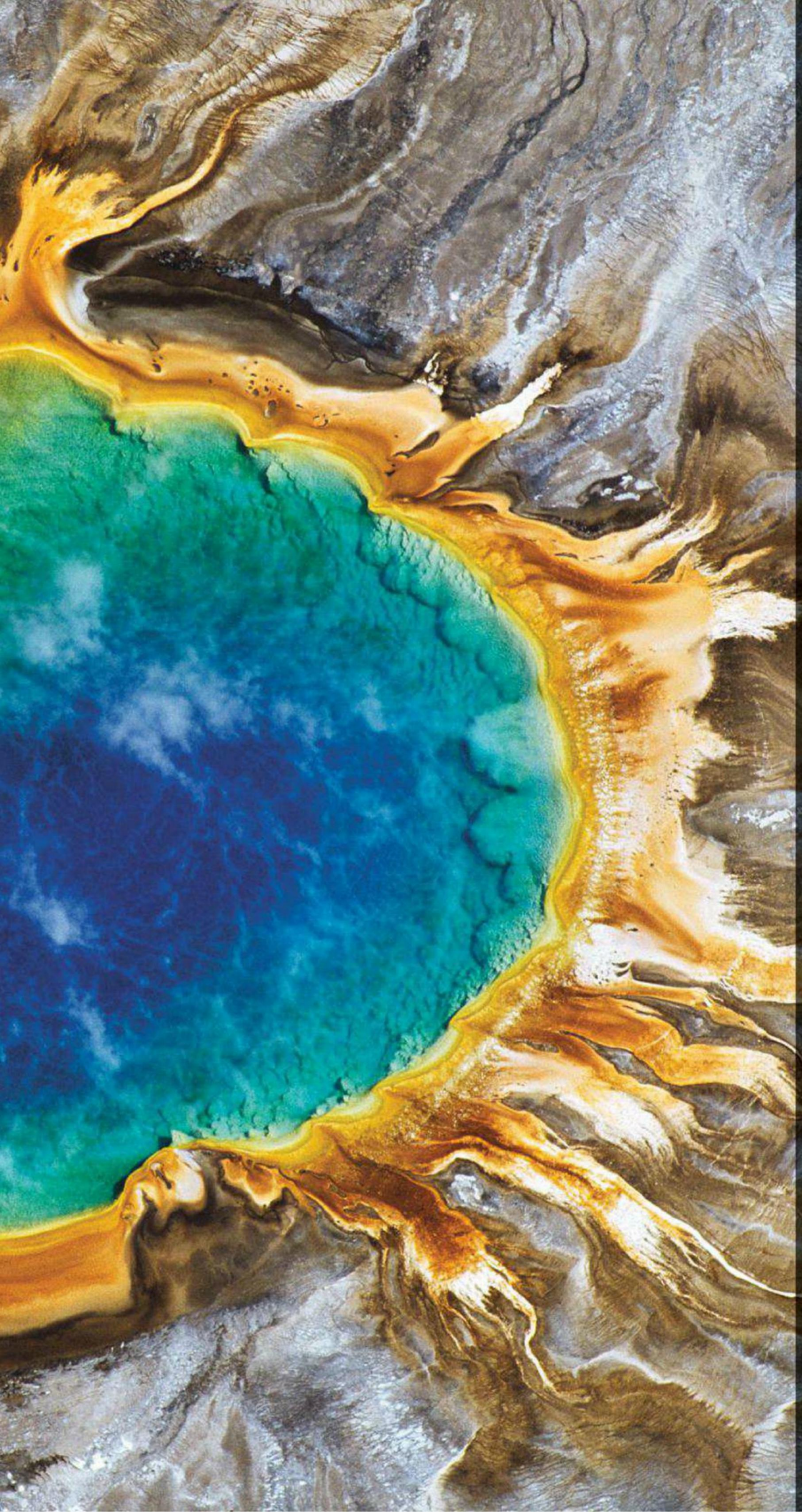
TO PRODUCE pigment explosions, Teru Onishi and his team used an air compressor (A) connected to a perforated platform on which he'd placed the pigments (B). To maintain the flexible bracelet's shape, he mounted it on a curved acrylic support and then suspended it above the pigments with clear twine. An acrylic chamber contained the explosion (C), above which the camera (D), tethered to an Apple Mac Pro (E), was protected in plastic sheeting. The photographer diffused the output of his Broncolor Unilite (F) and Scoro A2S pack (G) through a sheet of LeeLux 400 diffusion paper (H). A similar sheet reflected fill light back onto the set from the opposite wall. When all was ready, in a darkened room, Onishi used a single trigger (I) to fire the Unilite and the air compressor burst. A digital delay device (J) popped the strobe just milliseconds after the compressor went off.

AERIAL ACES

Ever since the first aerial photo was taken more than 150 years ago, photographers have been fascinated with taking pictures from aloft. Here we showcase three of the world's top professionals, with remarkably divergent styles—both in the photographs they take, and the way they take them.

By Dan Richards

JIM WARK



THE CURRENT STATE of aerial photography is so exceptional, we couldn't help but do this article. While researching new nature photography, we came across the three shooters profiled here and in every case said, "Wow, we have to do something with this guy." And so we did.

Getting Their Wings

Our three photographers took quite different flight-paths into aerial art.

For Jim Wark, it was perhaps inevitable. He learned to fly in the U.S. Navy, has flown as an airshow pilot, and pursued a career in geological engineering. He also comes from a long line of photographers, starting with his great-great-grandfather in Ireland.

But the *aha!* moment didn't happen until Wark was about to retire from corporate work. He was flying his newly purchased Aviat Husky high-wing plane back from Seattle to his home base of Pueblo, CO, when it struck.

The Husky has a clamshell door that can be easily opened during flight. "I opened that door and looked out and said, 'Wow, what a great plane for taking pictures,'" he recalls.

In the next two decades, Wark would fly more than 7,500 photo hours, take more than 150,000 photographs, living out of

GRAND PRISMATIC SPRING, YELLOWSTONE NATIONAL PARK
The central blue water is about 160°F; colors at the edges are caused by bacteria in thr lower temperatures. Jim Wark shot this "bombsight view" with a Leica M6, 90mm f/2 Summicron lens; 1/1000 sec at f/4 on Fujichrome Velvia 50.

CITY OF LONDON AT NIGHT
Jason Hawkes credits digital photography for making shots like this possible—taken at high ISO, yet nearly grainless. His Nikon D3 and 14–24mm f/2.8 AF Nikkor were rigged to a stabilizing mount inside a helicopter to make the shot at 1/80 sec and f/2.8, ISO 3200.

the plane and camping in wilderness areas sometimes for weeks at a time. He has photographed over all 50 U.S. states and all the provinces of Canada.

Wark can maneuver his plane to put the clamshell opening facing straight down; this "bombsight view" is how he took his shot of the thermal springs. Featured in his latest book, *Leave No Trace: The Vanishing North American Wilderness* (Universe, 2011), it is one of five of Wark's photos that will appear on U.S. Forever postage stamps this fall.

U.K.-born and -based Jason Hawkes took pictures as a college student, but never thought about aerial photography until the flying bug bit him during a youthful lark. "I was 21 years old and I happened to go flying in an ultralight," he says. "I was just amazed at what you could see from about 1,000 feet over the ground."

Within a few months he had obtained his ultralight license and purchased a craft of his own. "And I just started flying around and taking pictures."

Fortune intervened again a few years later, when Hawkes cold-called the editor of the British magazine *Photography* and asked to meet with him. "I took a bunch of transparencies—and he did something like an eight-page spread of my work," Hawkes says.

JASON HAWKES

FLAMINGOES OVER LAKE BOROGIA, KENYA
Michael Poliza estimates there were several hundred thousand flamingoes beneath him, moving from lake to lake to feed. A Canon EOS-1Ds Mark III with 70–200mm f/2.8L Canon EF IS II lens was used; 1/2000 sec at f/9, ISO 400.

That led to several commissions, including one for his first book, *London From the Air* (Aa Publishing, 2010). And his career, well, took off from there into commercial assignments. His client list includes many major corporations, and he has published more than 40 photography books.

He uses a helicopter and hired pilot exclusively for his commercial work, including the shot of the City of London. This photo demonstrates dramatically how digital capture has transformed photography. "I always wanted to shoot aerials at night, but you couldn't really do it on film. By the time you got to ISO 800, films were so grainy it was horrible," he says. "When Nikon brought out the D3, I pretty much bought it that day. Now I can shoot at ISO 1000 and up to 3200, and you can hardly tell the difference. I shoot night photography more than day photography now."

Michael Poliza like to say that he has had three lives. As a teenager and young adult, he was a successful film and TV actor in his native Germany. Then he went on to found his own information technology company. In 1997, he turned to adventure/environmental photography, with a round-the-world cruise on the Starship to document the world's wild locations.

But aerial photography came his way by coincidence. "I was always intrigued by aerials

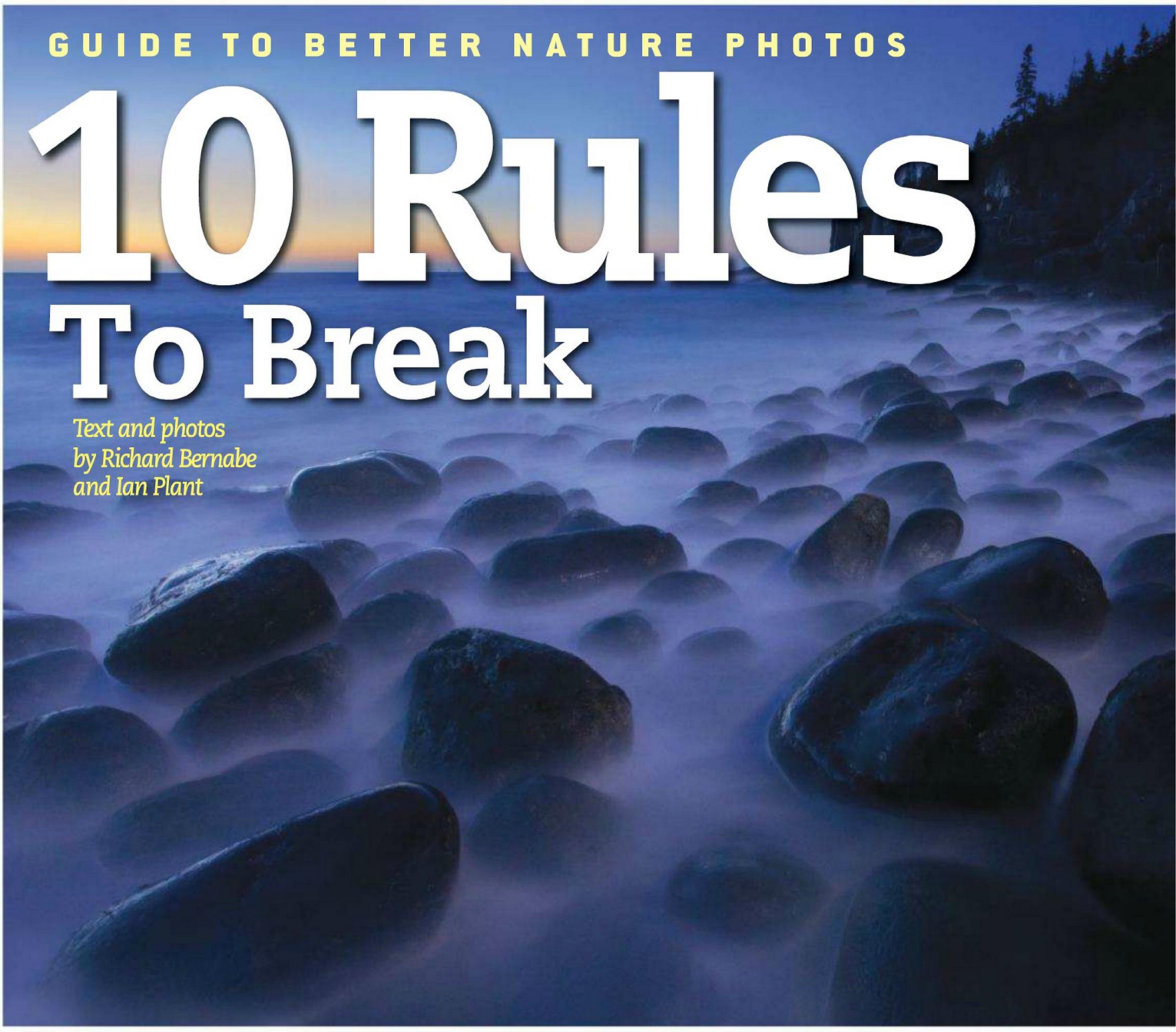
MICHAEL POLIZA

CONTINUES ON PAGE 112

GUIDE TO BETTER NATURE PHOTOS

10 Rules To Break

Text and photos by Richard Bernabe and Ian Plant



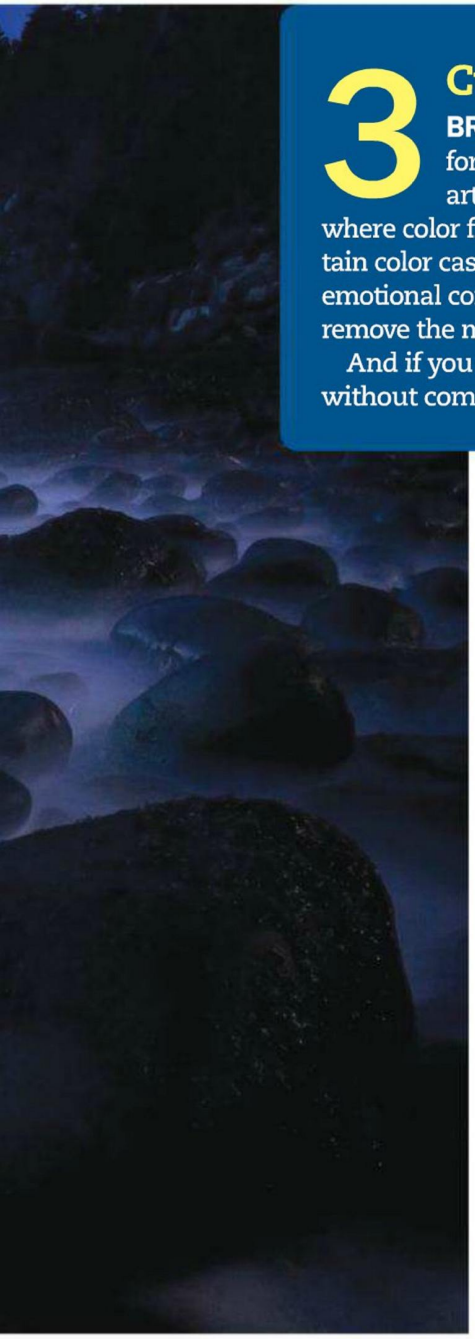
As professional nature photographers, we've interacted with thousands of other shooters during workshops, presentations, and random encounters in the field. Over the years, we've heard certain guidelines, maxims, and rules repeated over and over again—and repeated a few ourselves, before stopping to think. Some of these have merit, yet many do not. Here are 10 of our favorite "rules" that have little or no basis in reality. Go ahead and break them.

ACADIA NATIONAL PARK, ME
The deep-blue color balance helps set the mood. Canon EOS 5D Mark II with 17–40mm f/4L EF lens; 30 sec at f/10, ISO 1250.

1 A good exposure has a bell-curve-shaped histogram.

BREAK IT: The shape of the graph doesn't actually tell you whether exposure is "good" or not, just how tones are distributed. For instance, proper exposure for a dark backlit scene, with just a fringe of light and very few midtones, will have a histogram that resembles an inverted bell curve. Although you should generally avoid overexposure of highlights (a histogram bulky on the right side) and underexposure of shadows (bulky on the left), this

RICHARD BERNABE (ROCKS); IAN PLANT (FOREST)

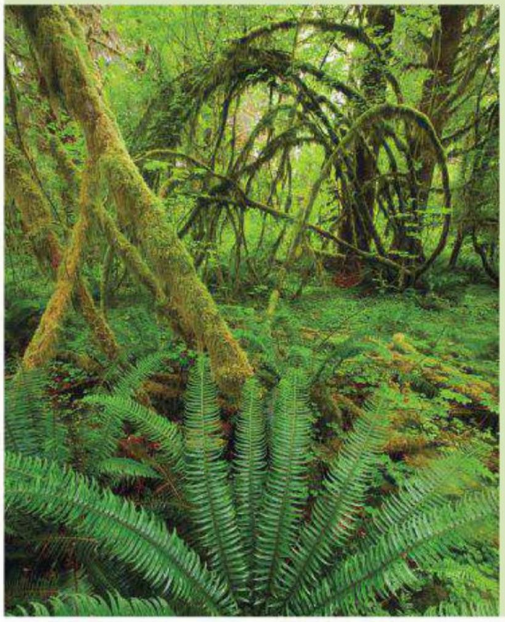


3 Customize your white balance before every shot.

BREAK IT: Using a gray card or white-balance cube to set the "correct" white balance for a nature photo is not only impractical, it imposes a rigid standard onto a subjective, artistic decision. While ensuring a neutral color balance makes sense for situations where color fidelity is paramount, this is not often the case with nature photography. In fact, certain color casts—the blues of dawn and dusk, or the warm hues of sunset—create mood and inject emotional content into the image. Setting a custom white balance during a sunset shoot will only remove the magic quality of the light that attracted you to the scene in the first place.

And if you shoot in RAW format, you can easily set white balance during the processing stage without compromising image quality. This lets you tweak it precisely on a calibrated monitor.

4 For maximum sharpness, focus one-third of the way into a scene.



BREAK IT: Used mostly with wide-angle landscape photography, this guideline allegedly finds the hyperfocal distance—the focus point that optimizes depth of field from nearest to farthest objects. But it is usually imprecise, and often plain wrong. Say your composition includes flowers 3 feet away and mountains 3 miles away. According to this rule, your optimal focus point is about 1 mile away!

To find the real hyperfocal distance, you could consult a distance chart or app (e.g., dofmaster.com). Or simply double the distance of the nearest element in your composition and focus there—if those flowers are 3 feet away, pick something 6 feet away. Next, stop down the aperture until everything is acceptably sharp from front to back, and touch up focus as necessary. Live view makes it easier.

isn't always so. In that backlit scene, keeping the highlights from overexposing will likely give you a dark image with some shadows ending up as pure black.

2 Shoot in manual for better exposure control.

BREAK IT: While there might be some learning value for beginners, manual mode doesn't have any practical advantage over the easier-to-use—and more intuitive— aperture- and shutter-priority autoexposure modes.

OLYMPIC NATIONAL PARK, WA
A small aperture kept near to far in focus. Canon EOS 5D Mark II with 14–24mm f/2.8G AF-S Nikkor; 4 sec at f/16, ISO 400.

In fact, we've seen countless shooters struggling to find the proper settings using manual, while their autoexposing counterparts get the shot before fleeting conditions change.

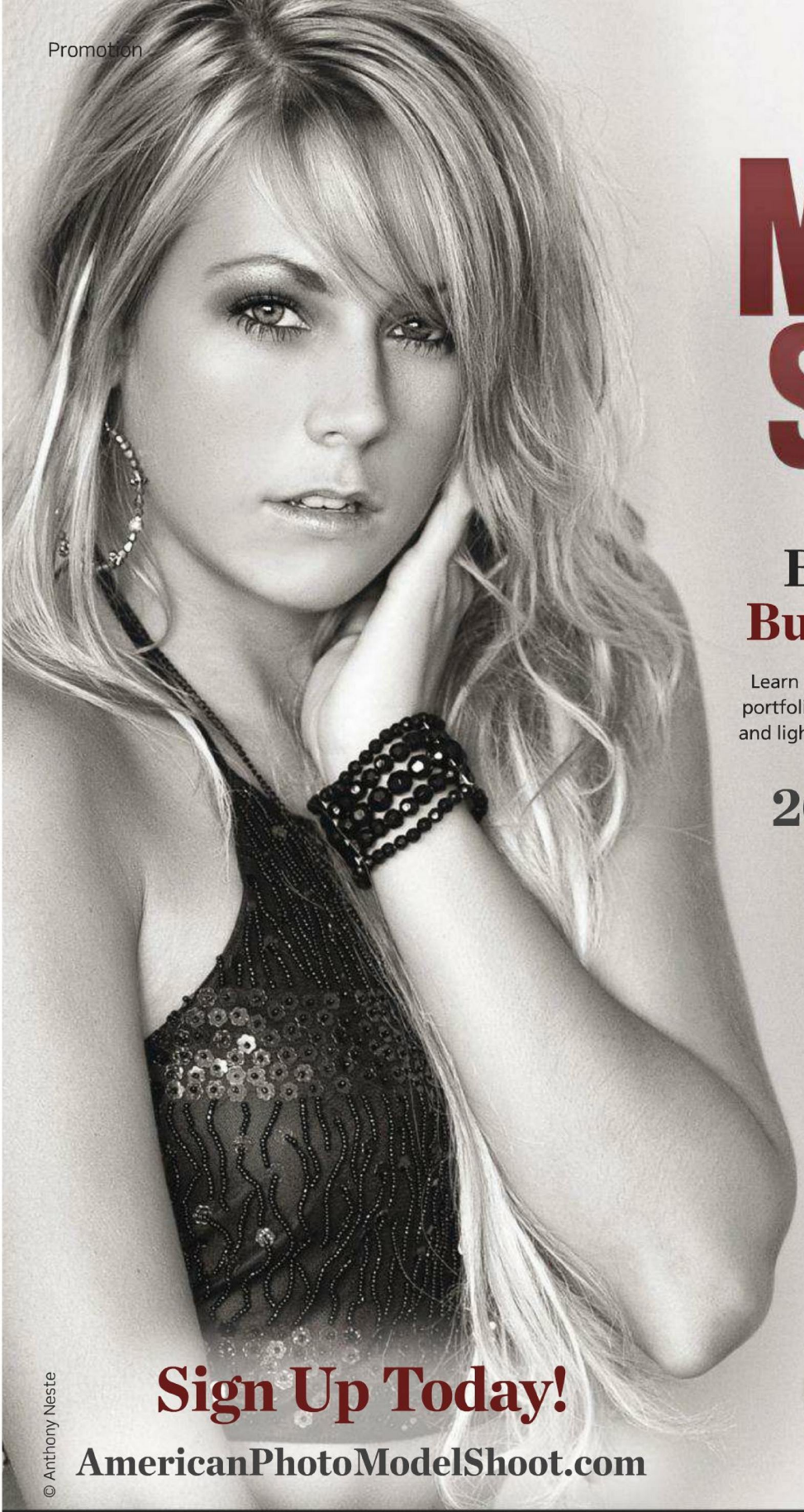
Think of aperture and shutter priority as speed manual: You set just one variable, and the camera will set the other based on the meter reading. If you don't like how it looks, you can brighten or darken it with the exposure-compensation control.

When shooting landscapes, we almost always shoot with aperture priority, because f-stop is often non-negotiable—when we need f/16 for sufficient depth of field, for example. For wildlife, the converse is usually true: Shutter speed is usually crucial.

5 Always shoot with the sun at your back.

BREAK IT: With the sun behind you, subjects in front of you are evenly lit, with lower contrast, making exposure easier. But while front lighting might be

CONTINUES ON PAGE 114



© Anthony Neste

american PHOTO MODEL SHOOT

1 day
Beautiful Models
Build Your Portfolio

Learn from professional photographers as you fill your portfolio with beautiful photos. We provide models, sets and lighting so all you need is your camera and creativity.

2012 SCHEDULE

June 16th - Seattle, WA

July 21st - St. Louis, MO

Aug 18th - Los Angeles, CA

Sept 15th - Austin, TX

Oct 6th - San Francisco, CA

Nov 17th - New York City, NY

Dec 1st - Ft. Lauderdale, FL

Sign Up Today!

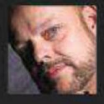
AmericanPhotoModelShoot.com

Presenting Sponsor

SIGMA

Come try out the new line of Sigma lenses!

Lindsay Adler
Sigma Pro Photographer



Kevin Ames
Sigma Pro Photographer

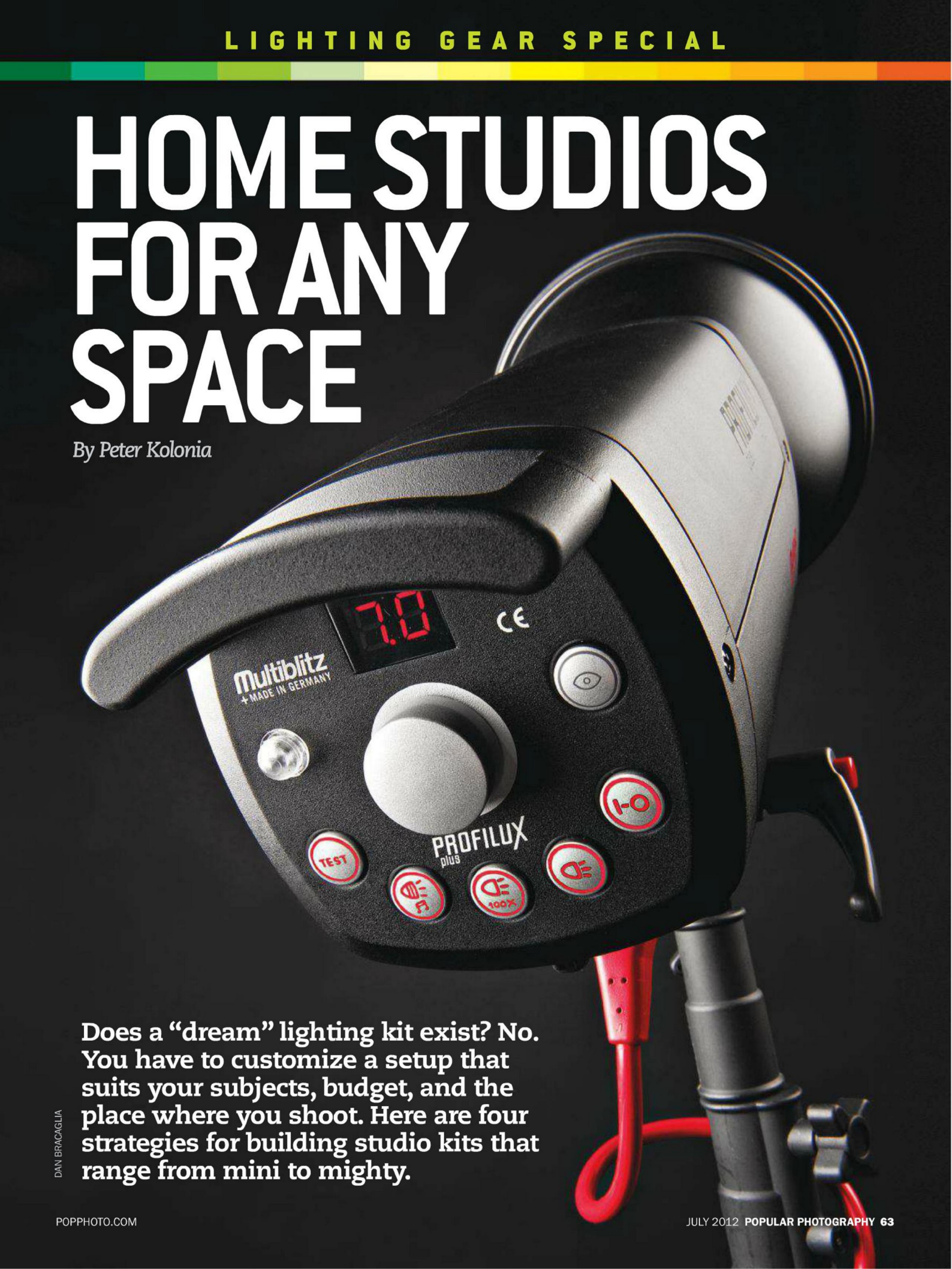
Anthony Neste
Professional Fashion & Editorial Photographer

Mark Reis
Professional Photojournalist

FOLLOW US ON American Photo Model Shoot | Youtube.com/apmodelshoot | @APModel Shoot

HOME STUDIOS FOR ANY SPACE

By Peter Kolonia



Does a "dream" lighting kit exist? No. You have to customize a setup that suits your subjects, budget, and the place where you shoot. Here are four strategies for building studio kits that range from mini to mighty.

DAN BRACAGLIA

Fits in a Backpack

WHAT TO LOOK FOR IN A COMPACT LOCATION LIGHTING KIT

NIALL BENVIE/NATUREPL.COM

OAK HAWKMOTH Shot on location by Niall Benvie in the south of France; lit with two compact Lumedyne heads with easy-to-pack white diffusers.

WANT TO GET serious about the lighting you take on location? You'll quickly learn the meaning of the word "compromise." Your lights should be extraordinarily compact, with an ample set of light-modifying accessories that are equally packable. Yet they must have as many features and almost as much power as their heavier, studio-bound brethren. Since you may ultimately lug these lights to the ends of the earth, you want them to be rugged enough to suffer abuse, but also to weigh as little as possible and to be simple to operate.

There's more: Your location kits should offer the option of being battery-operable—not yet a given today. Not even the convenient Multiblitz backpack kit with two strobes, stands, and umbrellas can be battery-powered.

Of course, shoe-mount lighting remains an option, but to obtain

(A) The 4-section Gitzo Traveler tripod ($775, street) can also serve as a lightstand or reflector holder. (B) Similarly, Lowepro's capacious Pro Runner x450 backpack ($345, street) does double duty: It can hold two small power packs, strobe heads, cords, and a tripod for the field, yet its wheels suit it to city use, too. (C) Also consider the all-metal, weatherproofed Surefire 6px Pro Dual-Output LED flashlight ($81, street). It will light your way after dark, but can also serve as a dual-power fill light. (D) B&H's Impact 12-inch reflectors ($10, direct) collapse to fit in a pack's side pocket. (E) The Elinchrom Ranger Quadra ($1,480, street) is already the lightest location strobe available, and a dramatically lighter lithium battery is in the works.

DREAM KIT
"You can produce an image like my moth with very simple gear," says nature specialist Niall Benvie "In an ideal world, though, I'd recommend an Elinchrom Ranger Quadra with two A heads for up to 400 Ws, a Skyport radio trigger, and two Benbo Trekker tripods to support the lights and their softboxes." Try fitting all that in just one backpack.

ULTRA-PORTABLE LIGHTS

Elinchrom's Ranger Quadra, while a clear favorite among nature pros, isn't your only compact, battery-operated lighting option. Others:

1. **Dyna-lite Uni400JR** Dyna-lite's 3.6-lb location head is often bundled with an equally light Jack Rabbit battery. ($680, street)
2. **Lumedyne HEBC Head** Is often bundled with the rapid-recycle PSBX battery with an ample 100-month warranty. (Kit: $2,061, street)
3. **Photoflex Triton Flash** This battery and 300 Ws head weigh less than 4 lbs and promise 750 pops per charge. ($1,273, street)
4. **Profoto AcuteB2 600 AirS/R** This pack/head is powerful (600 Ws) and, with PocketWizard built in, versatile. ($2,999, street)
5. **Quantum T5D-R Q Flash** Compact, rugged, and bright, the Q-flash requires a Turbo-style Quantum battery. ($706, street)

bright enough output to do battle with the sun in strongly backlit scenes, you might need a case full of shoe-mounters, plus as many batteries, cables, and wireless flash triggers to sync the units. We prefer a single 300 Ws strobe to a handful of shoe-mount flashes.

Of all today's backpackable lighting options, the photographers we've spoken with agree that the Elinchrom Ranger Quadra juggles all these compromising qualities best. Scottish photographer Niall Benvie (niallbenvie.photoshelter.com), who captured the moth shown here, often uses them (though not for this photo).

The Santa Fe adventure photographer Michael Clark is also a convert (www.michaelclarkphoto.com). His blog/newsletter is crammed with Quadra-lit scenes. "I carry two complete Quadra setups (two packs and two heads) along with wireless triggers (Skyports or PocketWizards), reflectors, a shoot-through umbrella, a lightweight stand and even a small Elinchrom softbox with a grid all in a Lowepro Vertex 300 backpack," he says. "I can also usually squeeze a camera body and a few lenses in there, too. It makes for a very versatile and portable setup."

What do we like best? You can keep the Quadra kit packed and ready to go for spur-of-the-moment photo shoots.

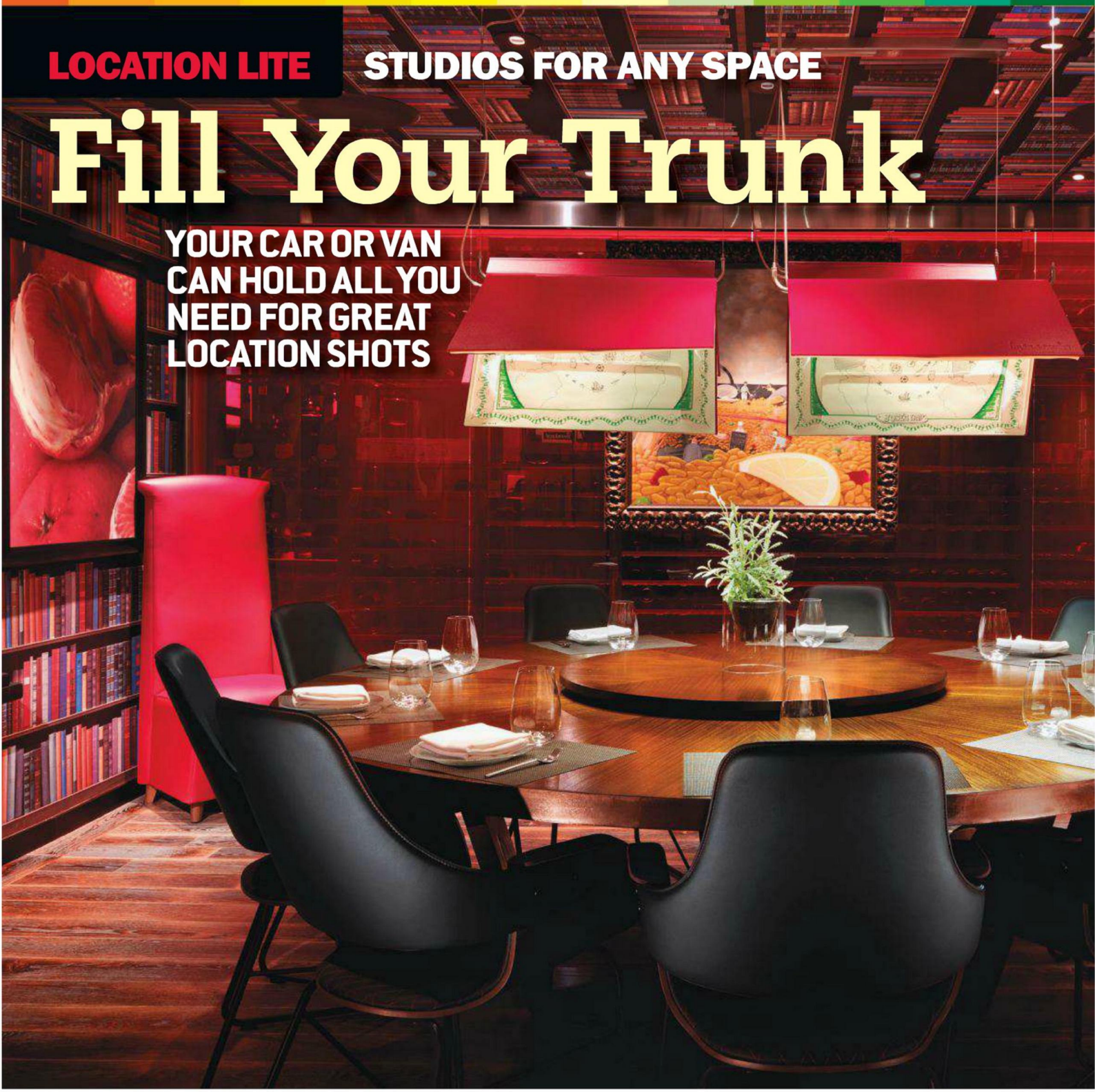
PRODUCT PHOTOS COURTESY OF MANUFACTURERS AND DISTRIBUTORS

LOCATION LITE

STUDIOS FOR ANY SPACE

Fill Your Trunk

YOUR CAR OR VAN CAN HOLD ALL YOU NEED FOR GREAT LOCATION SHOTS



JEFF GREEN

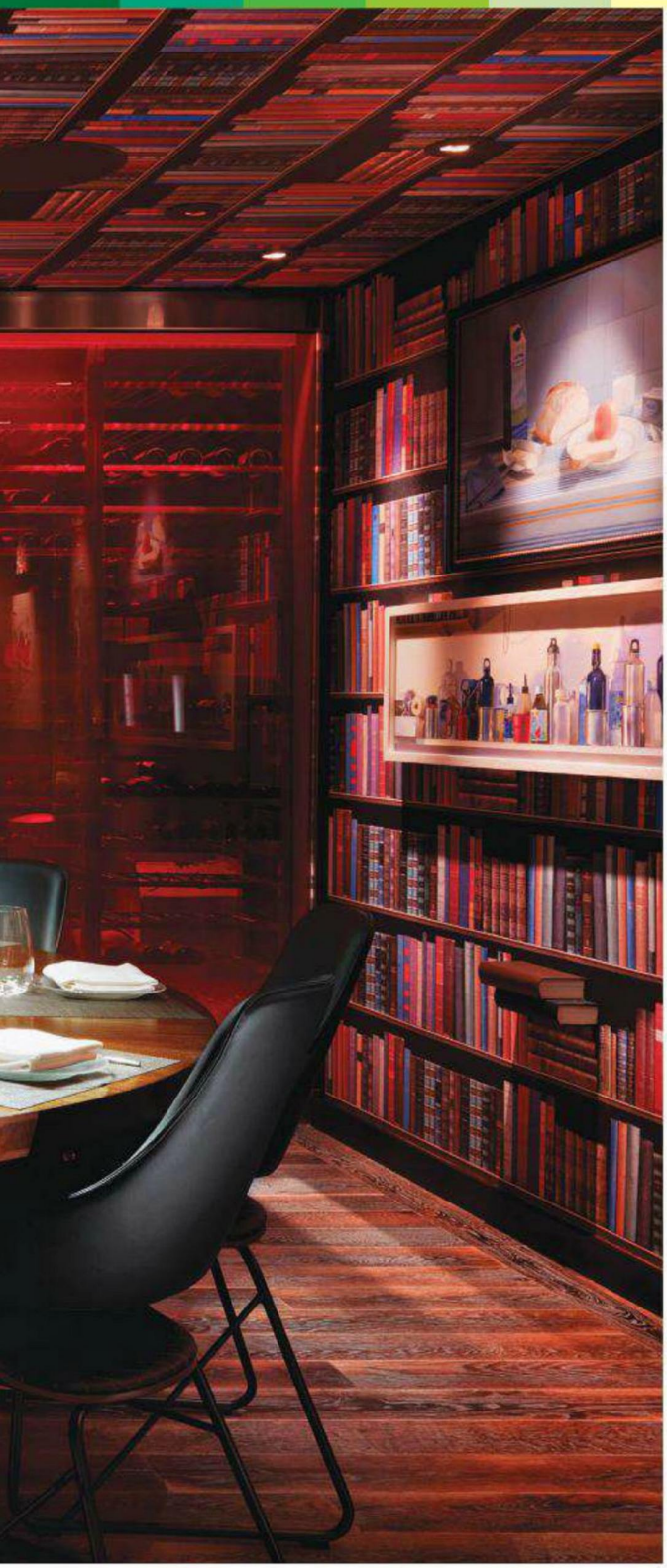
INTERIORS Jeff Green shot with a Hasselbad H3DII and 35–90mm Hassie lens; 1.4 sec at f/16, ISO 100.

THE NEXT STEP for strobe-loving photographers on the go is graduating to a studio and lighting kit that can be carried in an automobile trunk or a van. The additional gear this lets you bring on location can be liberating and will open up numerous lighting possibilities for portraits and interior architecture.

Jeff Green (jeffgreenphoto.com), who made this view of a Las Vegas restaurant's private dining room, knew that he would need numerous spotlights to open up shadows and draw viewers' eyes to the room's most interesting features.

Green uses Arri hot lights exclusively for this type of location lighting, and carries everything needed to the site in his Jeep Grand Cherokee.

"I usually take three to four cases and a folding cart," he explains. "Hot lights go in hard-walled Pelican cases, while the strobes and softboxes go in a large Tamrac rolling case."



GEAR

(A) Duvetyne black-out cloth (from $12, street) will control light spill and color temperature contamination by on-site window light. (B) The Multiblitz GlamKit 2 ($1,899, direct) location package is based on the rugged and well-designed Profilux Plus portable strobe; the battery will provide up to 1,400 full-power pops per charge. (C) To balance the color of flash and ambient lighting, try the Rosco 55-Piece Strobist Filter Kit ($18, street) with its 55 acetate filters for shoe-mount flashes. (D) The Impact Light Kit bag ($79, street) will hold two monolights, umbrellas, and lightstands, and its handle converts to a shoulder strap. (E) Photoflex's Litepanel diffusion wall ($570, street) includes stands and ballast bags. (F) Adorama's Flashpoint X-series radio trigger ($100, direct) will fire strobes wirelessly from almost 600 feet.

LIGHT-MODIFIER MUSTS

Make sure your strobe maker offers most or all of the following lighting tools for a car- or van-based location lighting kit:

1. **Softboxes in multiple sizes and shapes.** The larger your subject is, the larger your softbox should be.
2. **Softbox and reflector accessories.** These might include a variety of grids, egg-crate softbox grids, and diffusion socks.
3. **Reflectors in multiple sizes and shapes.** Large-size reflectors are good for groups; beauty dishes for, well, beauty.
4. **Snoots and barn doors.** For focusing and narrowing the path of your strobe's output. A great way to focus light—and attention.
5. **Built-in wireless flash triggers.** Radio-based, they couple with on-camera transmitters, helping to take you wireless.

Continuous light sources like his Arris let you see their effects as you set up, and are a must for shooting video indoors. But hot lights, of course, generate a lot of heat. That is one reason that many location shooters prefer cooler and easier-to-handle strobe lighting.

The good news? You can choose from dozens of location strobe kits, all of which would easily fit in a trunk. One of our favorites is the Multiblitz GlamKit 2 based on a Profilux Plus strobe like the one on our opening page. This $1,899 (direct) kit includes the strobe, a portable battery, trolley, an umbrella/softbox, stand, and case.

MIXED LIGHT Green used ambient light and a slew of Arri hot lights for this shot.

An important consideration for hauling lights around in your car: Protecting them. News and wedding shooters often line their trunks with foam padding, adding foam walls to create sections that separate grip (with little protection), lighting gear, and cameras (with lots of protection).

PRODUCT PHOTOS COURTESY OF MANUFACTURERS AND DISTRIBUTORS

Stow it at Home

YOU CAN PACK A LOT OF STUDIO IN A SMALL CLOSET

BRIAN KLUTCH PHOTOGRAPHY INC.

SEMI-PRO photographers who are serious about lighting and prefer studio to location work typically fall into two groups: Some want studio lighting that they can permanently set up in a dedicated bedroom or basement. Others—and we imagine this includes most of you—want a more temporary lighting solution, one that can be folded up compactly and conveniently slipped into a hall or bedroom closet

You might be shooting tabletop products or crafts for online auctions or catalogues, taking portraits of children or pets, or selling headshots to actors. But if you're just starting to get serious about lighting, and aren't yet sure how much of your home—or budget—to dedicate to gear, there are some important factors to consider.

First, tailor your lighting purchases to suit your subjects. For a closet-based product studio, we like the compact proportions of easily stored LED lights, for example. They're cool-operating, are a pleasure to work around, and their continuous output lets you evaluate your lighting effects as you work. LEDs are especially well-suited to small and stationary subjects such as these sunglasses.

But if you work with active subjects—young children or pets, for example—you will need the action-stopping capability of instantaneous studio strobes. If action-freezing is important, shop for strobes with extremely short flash durations, such as the 1/6500 sec White Lighting X-Series monolights (paulcbuff.com/whitelightning.php).

The other crucial consideration is, of course, the size of your storage space. In closet-stowed lighting setups, compact and collapsible products are musts. We prefer small, four-section lightstands over stands that have three-section legs, for example, because they fold more compactly.

To make the most of that closet space, New York-based pro Brian Klutch, who shot these sunglasses (brianklutch.com), also recommends hard-sided cases for their stackability.

The good news? Almost every lighting tool under the sun is available in a compact, collapsible closet-storable version. Examples range from Chimera's collapsible beauty dish (chimera lighting.com; $230, street) to the inflatable EPS El Macho Photo Studio (www.massieraindustries.com; from $1,899, street). This automatically inflates from suitcase-sized to a weather-resistant 15x11x9-foot studio you can set up in your backyard in minutes.

GEAR

(A) White Tacky Wax ($4, street) is sold in art supply shops and can be used to anchor objects (like the sunglasses in Brian Klutch's shot) to each other or the tabletop. The way it holds and aims small reflectors makes it a lighting essential. (B) The Adorama Flashpoint dimmable 500 LED studio light ($200, direct), at about 14x8x3 inches, will fit in a closet, is comfortable to work around, and, unlike most studio LEDs, fits most budgets. (C) The Lastolite Cubelite Studio Shooting tent ($500, street) is designed for small product photography, folds flat, weighs just 3.5 lbs, and lets you work standing up. (D) Tenba's AW-MLC Medium Lighting Case ($618, street) holds up to two power packs and three to five heads, with an internal framework for structure. Klutch stores lighting gear in cases because "the protection they offer is essential." (E) Krylon Looking Glass paint ($14, street) lets you make studio reflectors to any size you like: Start by having glass cut at an art supply or framing shop, then spray one side to turn it into a mirror. In about an hour, it is dry enough to become a perfectly-sized reflector.

TABLETOP GLAMOUR Brian Klutch lit these sunglasses with Speedotron packs and heads "They're exceptionally reliable and moderately priced," he says. He placed a beauty dish above the sunglases "for the dramatic feel that its reflections added to the shot."

LIGHTSTAND ADD-ONS

Lightstands are essential, but easy to trip over and hard to store. Try these accessories to make them more valuable ... and palatable.

1. **Manfrotto Light Stand Holder.** This closet-space optimizer attaches to the wall and holds up to eight lightstands. ($28, street)
2. **Matthews Baby Boa.** This weighted bag wraps around a stand as ballast, keeping your lights from getting knocked over. ($33, street)
3. **Tenba 1031 PAT 50 Tripack.** This lightstand organizer could make that cluttered closet much neater. ($295, street)
4. **Tether Tools Aero Master.** This flat platform attaches to a lightstand, converting it to a handy 22x16-inch tabletop. ($220, street)
5. **Wimberley Plamp.** An articulating arm that can be clamped to a lightstand, it holds small flags and refectors. ($220, street)

PRODUCT PHOTOS COURTESY OF MANUFACTURERS AND DISTRIBUTORS

Bedroom Studio

DEDICATE A ROOM AS A FULL-TIME STUDIO TO UNLEASH YOUR CREATIVITY

CAROL WEINBERG

YOU WILL FIND many benefits to setting up a dedicated studio at home. Alas, few of us enjoy the luxury of a spare bedroom, basement, or garage that can be converted to a full-time, permanent photography studio.

Still, photographer Carol Weinberg did, and she reaped this wonderful portrait as a result. If this is something you've considered—and the room is free—you'll enjoy many advantages.

For one thing, you can purchase more durable lights. Because the gear you buy for a permanent home studio will probably stay put, its size and weight won't have the importance they do for location kits. This lets you invest in heavier, more solidly built equipment that could last a lifetime.

With your lights permanently in place, you won't have to dedicate large swaths of time to setting up and breaking them down. That leaves you considerably more hours for shooting and creative exploration. Similarly, you can shoot whenever the mood strikes.

Having full control over the studio gives you the ability not just to place and store your lighting tools exactly where they feel right to you, but to customize the whole room. If you enjoy using contrasty, dramatic lighting for your subjects, paint the walls black. If you like a softer, more suffused, diffused light, paint them white. Can't decide? Paint them a neutral gray. A large, heavy frame will let you hang a variety of backdrops, including big rolls of seamless paper.

The ability to work, session after session, with the same lighting equipment deployed in the same way, gives you the luxury of long-term continuity. This can make for a great learning opportunity that photographers who must pack up after every shoot never get to experience.

Explore all the effects your lights are capable of creating. Because the setup is permanent, you can work for a few hours, experimenting with small, incremental changes in light placement and power. After a shoot, you can leave everything in place and later pick up your work exactly where you left off.

This strategy allows for trial-and-error experimentation over long periods of time. For many of us that is the key to lighting—and photographic—success.

Besides, nothing shows your family, friends, and prospective clients that you are truly serious about photography than installing a fully dedicated studio in your home. Now go clear out that garage!

GEAR

(A) At 5x7 feet, the FJ Westcott X-Drop background kit ($100, street) is perfect for studio headshots. It includes the washable backdrop, stand, leg weights, and carrying case, and is compatible with nine accessory backdrops. (B) The Broncolor Senso lighting kit ($3,457, street) is very bright (1,200 Ws) and ruggedly constructed, and it boasts cleverly designed elements such as reflectors that double as protective caps. (C) Savage Floor Drops ($175, street) provide the look of handsome wooden floors even if you're shooting on concrete. Made of thin polyester, they roll up for storage, come in a variety of styles, and can also be hung as backdrops. (D) Chimera's Window Pattern stencils ($30, street) throw evocative shadow patterns and also come in many styles—this one creates the effect of vertical blind shadows. (The light source must have a focusable fresnel lens.) (E) The Manfrotto Sky Track Top 54 suspension system ($2,797, street) lets you hang lights from the ceiling, clearing your space of lightstands. The kit shown supports up to four lights.

ROOM FOR PORTRAITS Fashion photographer Carol Weinberg made this dancer's portrait in a home studio. "I placed her in front of a large swath of black velvet, which concealed the room and the chair she was sitting on," she says. "The lighting was a mix of window light and bounced strobe, with a 6x4-foot flag to the model's left that deepened the shadows."

LIGHT-SOURCE OPTIONS

Here are your choices for a permanent home-studio light sources. Most are best suited to stationary subjects, such as still lifes and products.

1. **Fluorescent** Cool-operating and can be daylight-balanced, with long-lasting bulbs. See the Photogenic Horizon Light. ($798, street)
2. **HMI** Soft, daylight-balanced, and requiring little power. An entry-level option is the Profoto ProDaylight 200 Air. ($2,025, street)
3. **LED** Cool-operating, daylight-balanced, long-lasting bulbs, but too dim for action. A fun one: Westcott's Ice Light. ($500, street)
4. **Strobe** Daylight-balanced and your best choice for action. A popular pick: the Elinchrom Ranger RX AS. ($2,295 for a kit, street)
5. **Tungsten** Hot to the touch, but dimmable for precise light. Not daylight-balanced. Try Lowel's Rifa-Lite eX66. ($571, street)

PRODUCT PHOTOS COURTESY OF MANUFACTURERS AND DISTRIBUTORS

INTERFIT

Expanding your Creativity

Super cool-Lite 6

Fluorescent flicker free Daylight Balanced

Each head equivalent to 750watts of Tungsten power

Easy to set up thanks to a new simple design

Item No : INT213 Single head Super Cool-lite 6 MRSP - $215.99
Kit No : INT214 Super Cool-lite 6 twin head Kit with stands MRSP - $529.99
Replacement Lamp : INT042 (32 watt)

Seculine LED Light

High-Power HD Light Source
Dimming and fan control function
Changeable light module

Tungsten / Daylight
Wireless control
(option)

Seculine LED Light

- *Digital dimming*
- *LCD display*
- *One touch changeable light module*
- *1/4inch screw mount*
- *Remote control(option)*

Three Versions available

L2S3K LED unit
with Tungsten Module $429.00

L2S5K LED unit
with Daylight Module $429.00

L2S3K5K LED unit
with Tungsten & Daylight Module
$613.00

Interfit Photographic Ltd
420 Industrial court West
Villa Rica,GA 30180
Tel :(toll Free) 1-866-947-9796

Want to know more about the Super Cool-lite range? Log on to

www.interfitphotographic.com

LAB

FULL LAB & FIELD TEST: NIKON'S FULL-FRAME D800
78

HANDS-ON REVIEW: ADOBE'S NEW PHOTOSHOP CS6
84

DSLR TEST

THREE-PEAT

The 5D we've been waiting for, since, well, the EOS 5D Mark II came out

CANON EOS 5D MARK III

- 22.3MP full-frame CMOS sensor
- 1920x1080p30 video capture
- Sensitivity up to ISO 102,400
- New 61-point AF and 63-zone metering systems
- $3,500, street

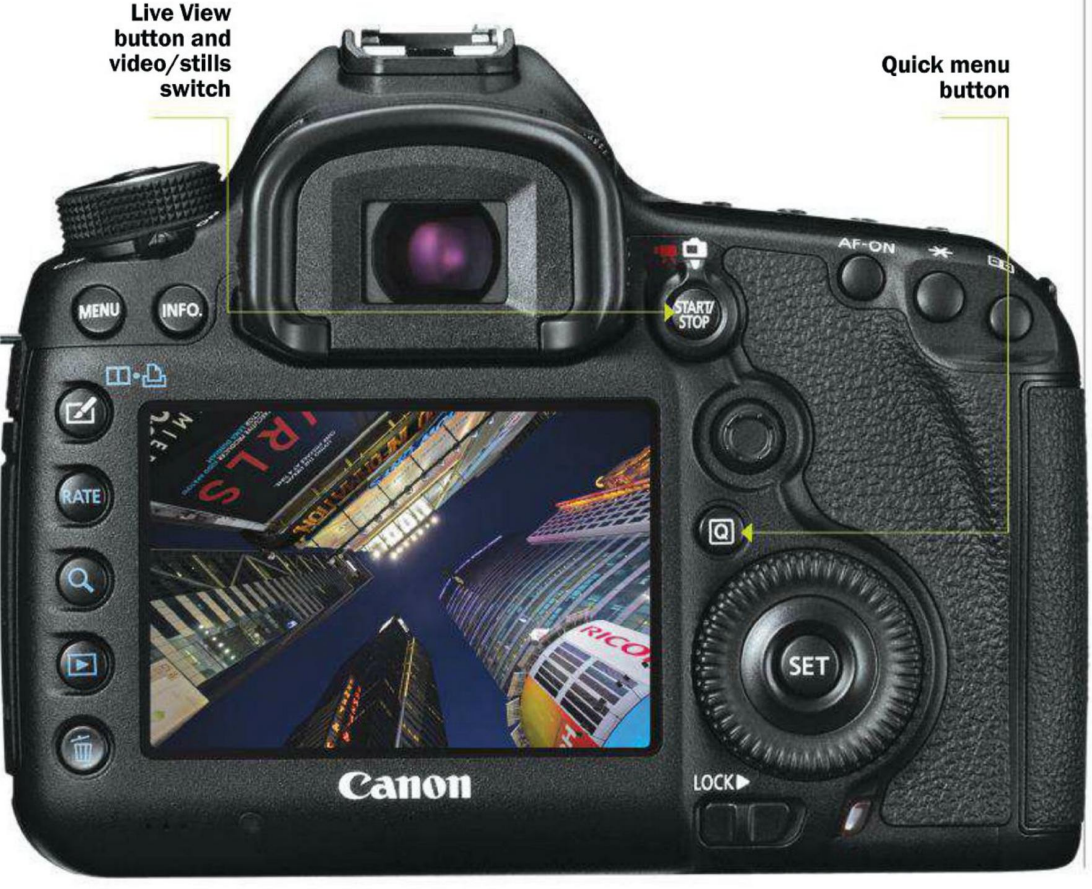
SATOSHI

THERE'S NO questioning the popularity of Canon's EOS 5D Mark II. After all, it's a very close second to Apple's iPhone 4 for the most-used camera on the image-sharing website Flickr. And now Canon has brought us the EOS 5D Mark III. If our tests are a guide, get ready for an even bigger hit.

The pixel count hasn't gone up much—a mere 1.2MP bump from the Mark II's 21.1MP. But look deeper and you'll see new metering and autofocus systems, an increase to 6 fps bursts (from 3.9), a top sensitivity of ISO 102,400 (up from ISO 25,600), plus several other convenient new features.

After running it through the Popular Photography Test Lab and experiencing it in the field, we can say that the 5D Mark III ($3,500, street, body only) is every bit the imaging machine the Mark II was—and more. It delivers low-noise, high-resolution images with manageable file sizes.

AMATEUR PRO



In the Test Lab

A perfect blend of accurate color rendering, high resolving power, and low noise comes together to earn Canon's EOS 5D Mark III an Excellent rating in overall image quality from ISO 50 all the way through ISO 12,800.

Let's pause for just a moment to realize what that means: The Mark III delivers color images with a Low noise rating on our stringent scale up to a sensitivity beyond that which was, not too long ago, relegated to very coarse-grained black-and-white film. That's a seriously admirable achievement.

Despite the Mark III having about one-third fewer pixels than the Nikon D800 (tested on page 78), it still easily scored an Excellent rating in our resolution test, with 2750 lines per picture height at its lowest (expanded) sensitivity of ISO 50. While that's a little less than the 2830 lines than the 5D Mark II delivered in this test, given the Mark III's noise performance (and considering that it has enough resolution for the vast majority of photographers), we don't see this as a real problem.

Likewise, the Mark III's average Delta E at ISO 50, our measure for color accuracy, was 6.9 compared to the Mark II's slightly better score of 6.3. Still, both earned an Excellent rating in this test, and we doubt that anyone will be able to see a difference between the accuracy of their color reproduction. (For more about this test, see this month's Tech Talk, page 34.)

Looking for clean images in very low light? Welcome to Mark III country. The camera earned an Extremely Low rating from ISO 50

CANON EOS 5D MARK III
WHAT'S HOT
Excellent image quality to ISO 12,800.
WHAT'S NOT
No pop-up flash.
WHO IT'S FOR
Pro and advanced amateur shooters looking for an affordable full-framer.

DAN BRACAGLIA (LCD IMAGE)

through 400, stepping up to Very Low from ISO 800 through 3200, and Low at ISO 6400 and 12,800. It doesn't become Unacceptable, and then only barely so, at ISO 51,200. Even at ISO 102,400, the noise score is only 4.4—compared with 4.9 at ISO 25,600 on the Mark II.

But this noise performance is thanks in part to a heavy dose of noise reduction at higher ISOs—which comes at the price of resolution. At ISO 12,800, the Mark III showed 2520 lines of resolution, but it dropped signicantly to 2150 lines at ISO 25,600. By ISO 51,200 it hit 1910 lines, and at ISO 102,400 it resolved just 1500 lines.

To compare, the Nikon D800 reaches Unacceptable noise at ISO 6400, yet still manages to resolve 2900 lines. Prior to the D800, the full-frame DSLR with the most resolution was Sony's Alpha 900, which resolved 2440 lines at its top of ISO 6400, though it too had Unacceptable noise at that setting.

In our lab-based autofocus-speed test, the Mark III showed very pleasing—if not record-breaking—results. It was able to focus in less than a second all the way down to nighttime darkness (EV –1). That's impressive. At EV –2, it became considerably less consistent, but averaged 1.15 seconds. So while it's not the fastest focuser we've seen, it represents a massive improvement over the Mark II: In the bright light of EV 12, the latter took 0.51 sec to focus, while the Mark III took 0.37 sec. Worse still, at EV –1 the Mark II lagged nearly a half-second behind, taking 1.47 sec to lock focus and shoot an image.

In the Field

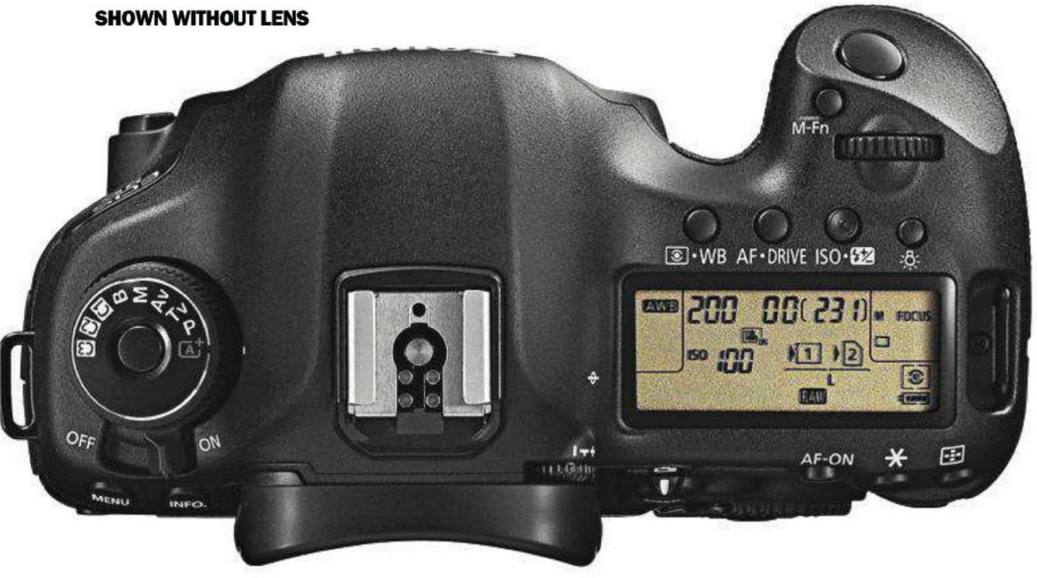
Though it's about the same size as its predecessor, the 5D Mark III's body has some advantages. The grip is more comfortable, with a nice divot for your fingertips on the side facing the lens. And the rubber has a different texture for more friction, so the grip feels more secure.

The well-placed, dedicated live view/video switch and button sit just to the right of the finder, making entering and exiting those modes intuitive and speedy. The on/off switch is now on top with the mode dial, and the second command wheel on the back now has a dedicated lock switch. This should make it less

Sure, it's a subtle thing, but the small raised dot inside the recessed surface of the ISO and flash-comp button atop the Mark III makes it possible to find that button by touch. This makes it easier and quicker to change ISO without taking your eye away from the optical viewfinder.

"The Canon EOS 5D Mark III is a serious improvement over the aging Mark II."

SHOWN WITHOUT LENS



TEST RESULTS

IMAGE QUALITY ISO 50–12,800

EXCELLENT

POOR — EXCELLENT

RESOLUTION ISO 50

2750 EXCELLENT

1500 2000 2500 3000 3500 4000

POOR — EXCELLENT

COLOR ACCURACY

EXCELLENT 6.9

HIGH — EXCELLENT

NOISE AT ISO

EXTREMELY LOW 0.9	50
EXTREMELY LOW 0.8	100
EXTREMELY LOW 0.9	200
EXTREMELY LOW 1.0	400
VERY LOW 1.3	800
VERY LOW 1.3	1600
VERY LOW 1.5	3200
LOW 1.6	6400
LOW 1.7	12,800
MODERATE 2.4	25,600
◀ UNACCEPTABLE 3.1	51,200
◀ UNACCEPTABLE 4.4	102,400

3.0 2.5 2.0 1.5 1.0 0.5

UNACCEPTABLE — EXTREMELY LOW

HIGHLIGHT/SHADOW DETAIL

EXTREMELY HIGH

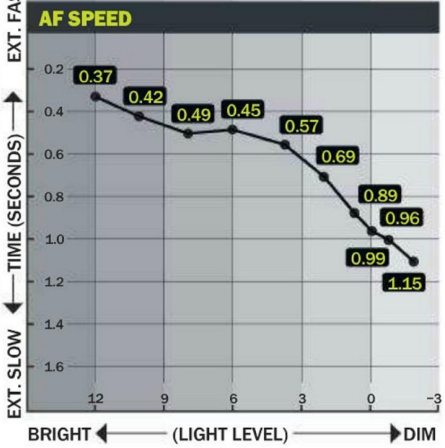
LOW — EXTREMELY HIGH

CONTRAST

VERY HIGH

LOW — EXTREMELY HIGH

AF SPEED



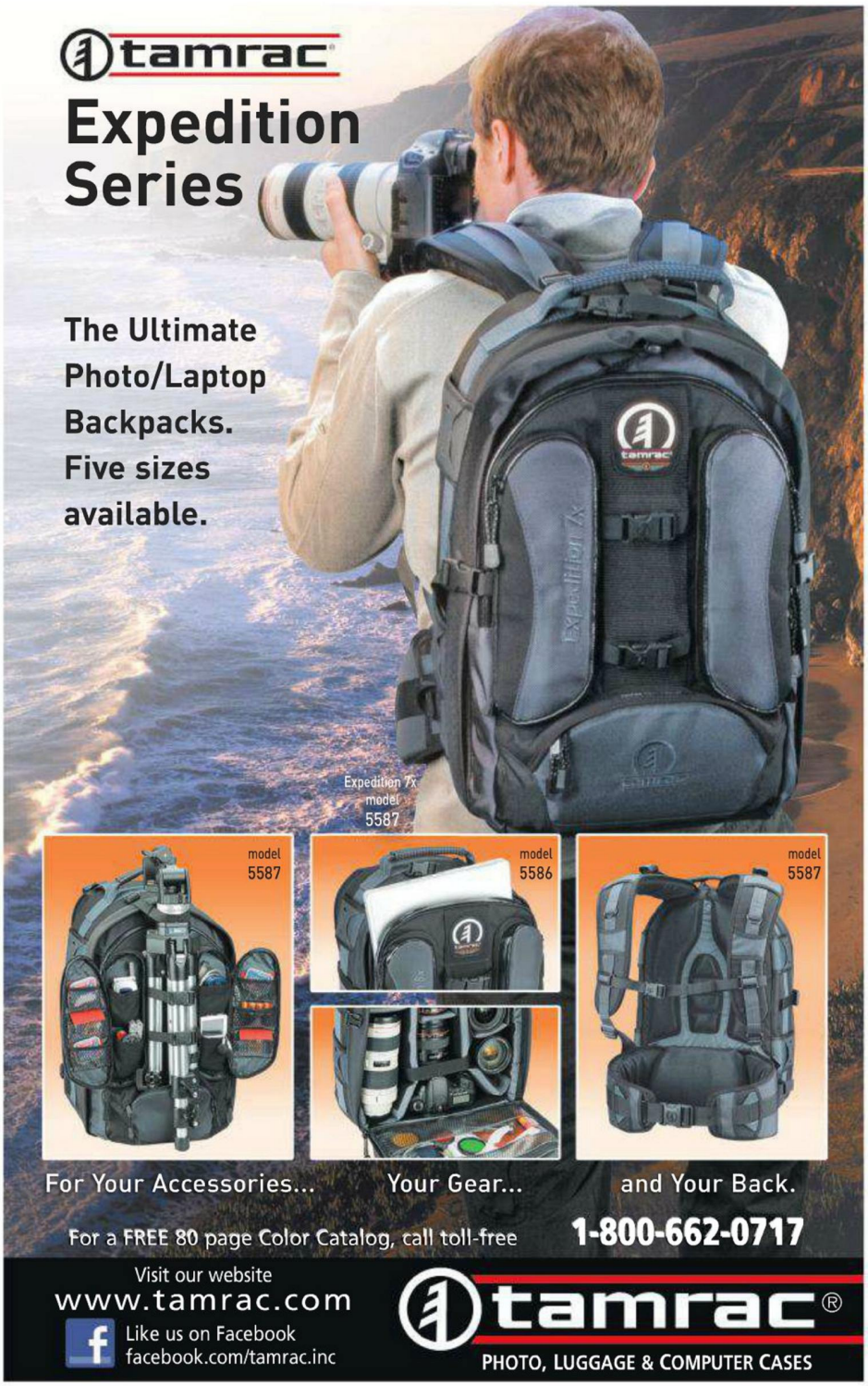
confusing to lock and unlock the wheel, and eliminates the possibility of accidentally turning off the camera when locking it, as could happen on the Mark II.

The addition of the Quick menu lets you change settings rapidly through the LCD interface when setting up for a shoot.

If you prefer to use dedicated buttons to change settings, the Mark III has you covered with a slew of them. Many let you change two settings through the different command wheels. There's a programmable multifunction button just behind the shutter button; the depth-of-field preview button on the front

CONTINUES ON PAGE 97

For info on how we test DSLRs, go to PopPhoto.com/reviews.



SPECIFICATIONS

IMAGING: 22.3MP effective, full-frame CMOS sensor captures images at 5760x3840 pixels with 14 bits/color in RAW mode.

STORAGE: CompactFlash and SD. Stores JPEG, CR2 RAW, or RAW + JPEG files.

VIDEO: Records up to 1920x1080 pixels at 30 or 24 fps in MPEG-4 H.264 format with choice of ALL-I or IPB compression; built-in monaural microphone; stereo microphone input; approx. 1 hr, 20-min maximum clip size at highest quality.

BURST RATE: Full-sized JPEGs (Fine mode), up to 16,270 shots at 6 fps; RAW, up to 18 shots at 6 fps; RAW+JPEG, up to 7 shots at 6 fps; using UDMA mode 7 CF card.

AF SYSTEM: TTL phase-detection with 61 illuminated focus points (up to 41 cross-type points, varying by lens used); single-shot, continuous, predictive focus tracking; tested sensitivity down to EV −2 (at ISO 100, f/1.4); AF points can be grouped and selected by area.

LIVE VIEW: Full-time contrast detection, or single-shot phase-detection AF with mirror interrupting view momentarily.

SHUTTER SPEEDS: 1/8000 to 30 sec, plus B (1/3-EV increments); shutter life rated to 150,000 cycles; flash sync to 1/200 second.

METERING: TTL metering using 63-zone sensor; Evaluative, centerweighted, partial (approx. 7.2% of finder at center), and spot (approx. 1.5% of finder at center); range, 1 to 20 EV (at ISO 100).

ISO RANGE: ISO 100–25600 (in 1- or 1/3-EV steps), expandable to ISO 50–102,400.

VIEWFINDER: Fixed eye-level pentaprism.

LCD: Fixed 3.2-in. TFT with 1.04 million-dot resolution, 7-step brightness adjustment.

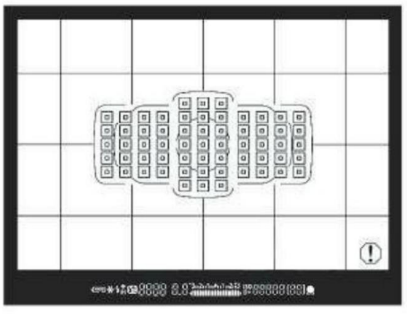
OUTPUT: Hi-Speed USB 2.0, mini-HDMI video, and stereo headphone minijack.

BATTERY: Rechargeable LP-E6 Li-ion; CIPA rating, 950 shots with optical viewfinder.

SIZE/WEIGHT: 6.0x4.6x3.0 in., 2.1 lb with a card and battery.

STREET PRICE: $3,500, body only; $4,300 with 24–105mm f/4L IS USM AF EF lens.

INFO: www.canoneos.com



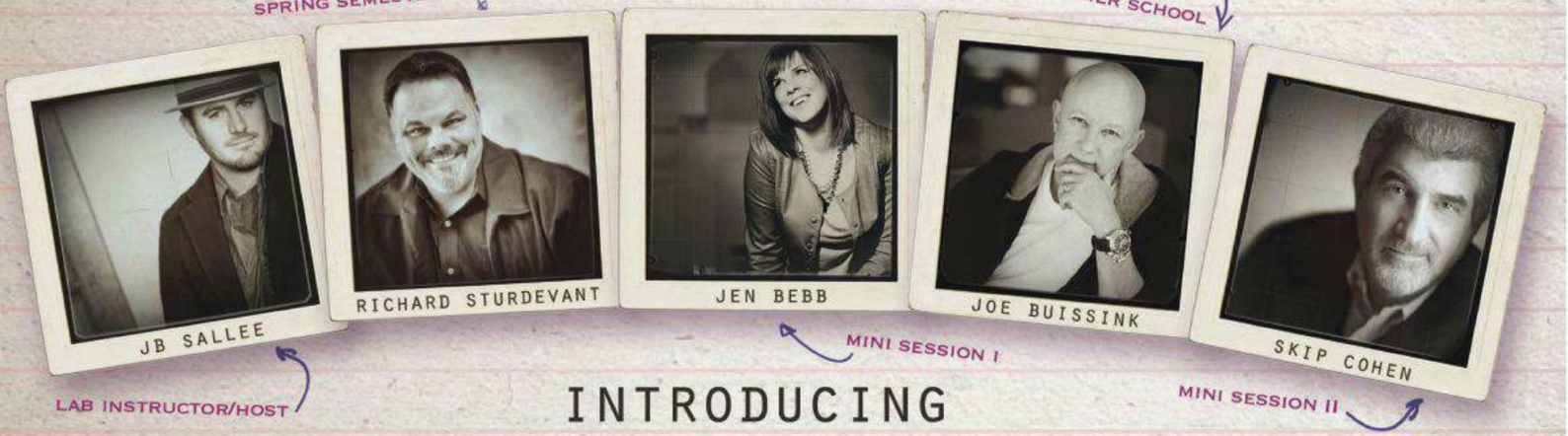
VIEWFINDER TEST: Accuracy, 100% (Excellent); Magnification, 0.71X (Very Good).

SALLEE SCHOOL LIVE

Don't get left in the dark room !

SPRING SEMESTER

SUMMER SCHOOL



LAB INSTRUCTOR/HOST

MINI SESSION I

MINI SESSION II

INTRODUCING

YOUR FIRST HALF 2012 INSTRUCTORS

CONTINUOUS - LOW COST - LIVE EDUCATION
IN A CITY NEAR YOU!

PHOENIX	MARCH 19
LOS ANGELES	MARCH 20
SAN FRANCISCO	MARCH 21
PORTLAND	MARCH 23
DENVER	MARCH 25
KANSAS CITY	MARCH 26
ST. LOUIS	MARCH 27
HOUSTON	MARCH 28
DALLAS	MARCH 30
MINNEAPOLIS	APRIL 1
CHICAGO	APRIL 2
COLUMBUS	APRIL 4
BOSTON	APRIL 5
NASHVILLE	APRIL 9
TAMPA	APRIL 10
ATLANTA	APRIL 12
NEWARK	APRIL 13
CHARLOTTE	APRIL 15
OKLAHOMA CITY	APRIL 16

ENROLL TODAY

BEFORE CLASSES FILL UP

ONLY

$49

WITH THIS CODE
(POPPHOTOAPRIL)
$99 AT THE DOOR

FIRST 50 TO ENROLL IN EACH CITY WILL RECEIVE $1000+ IN STUDENT COUPONS

www.salleeschool.com

WPPI · RANGEFINDER · radiopopper

ALBUM EPOCA · Kodak · MILLER'S PROFESSIONAL IMAGING · MARCO FINE ARTS · fotofafa · QUANTUM · songfreedom · Marathon · mpixpro · animoto FOR PHOTOGRAPHY · onOne Software

AMATEUR PRO

Pixel Power

NIKON'S NEWEST IS THE CURRENT REIGNING KING OF MEGAPIXELS

WHEN THE Nikon D700 hit the market in 2008, it fought off competition from Canon's EOS 5D Mark II with a much fancier autofocus system, a slightly faster burst rate, and comparable sensitivity settings. Despite its lower resolution (the Nikon's 12.1MP sensor trailed the Canon's 21.1MP), the D700 offered plenty of bang for the buck—with a pop-up flash to top it all off.

Now Nikon's new D800 ($3,000, street, body only) leaps forward with a 36.3MP sensor that leaves Canon's EOS 5D Mark III (tested on page 73) playing resolution catch-up. But the D800 shoots at a slightly lower burst rate and produces more noise at very high ISOs than the 5D Mark III, which has smaller image files and fewer pixels to contend with.

Are the D800's incredibly detailed images enough to make you forget about the Canon's charms? Ultimately, it depends on your priorities as a photographer.

In the Test Lab

The Nikon D800 earned an Excellent rating in overall Image Quality from ISO 50 through ISO 800. The camera's limiting factor was noise: With its record-setting number of pixels (for a 24x36mm full-frame sensor) noise proves to be a challenge as sensitivity rises.

The benefit of all those pixels is the highest resolution we have seen yet from a 35mm-format DSLR. The D800 has enough resolution for an Excellent rating through all but its top ISO of 25,600. At ISO 50, it served up

NIKON D800
WHAT'S HOT
Highest resolution full-framer around.
WHAT'S NOT
Big file sizes demand big pricey storage.
WHO IT'S FOR
Nikon shooters who want the highest resolution full-frame body available.

DAN BRACAGLIA (LCD IMAGE)

Hoodman builds RAW STEEL ruggedness and "Pin Guard$_{tm}$" into a new SuperSpeed USB 3.0 UDMA Card Reader

Enjoy time saving 5 Gbps data transfers of CompactFlash or SD cards with a new ruggedized RAW STEEL SuperSpeed USB 3.0 UDMA card reader from Hoodman. Downloads are up to 10 times faster than USB 2.0 specs.

Hoodman built the new reader into a ruggedized metal housing and added a new concept called "Pin Guard". Pin Guard is an innovative drop down door that keeps reader pins protected until a CompactFlash card is inserted into the reader. Reinforced cable inputs, metal housing and "Pin Guard" all work together to yield the most durable card reader made.

*Supports CompactFlash, SD, SDHC, SDXC & UHS-1 memory cards

HoodLoupe$_{tm}$ 3.0 for glare free LCD viewing

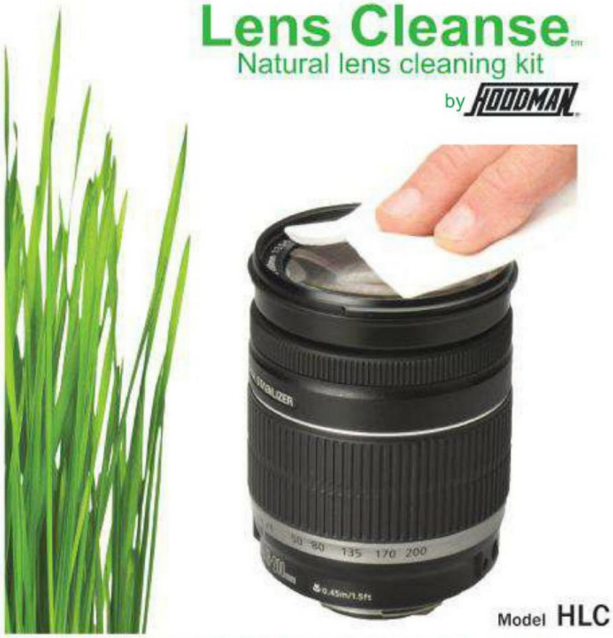
Checking your histogram, composition and focus outdoors is easy with Hoodman's HoodLoupe 3.0. Precise 1X German Glass Optics deliver a ± 3 diopter adjustment. HoodLoupe 3.0 is encased in user friendly rubber and fits 3 inch or smaller LCD screens. Comfortable neck lanyard and compact storage case included.

PATENT US 7,386,229 B2 and 7,034,877

Lens Cleanse$_{tm}$

Natural lens cleaning kit

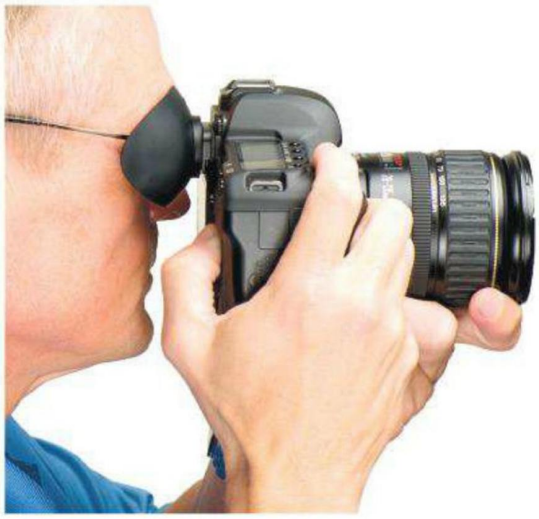
by HOODMAN



Model HLC

Enzyme activated / Eco responsible

Specially formulated enzymes actually breakdown grime to super clean photographic lenses and filters without harming delicate optical coatings or the environment. Convenient wet & dry kits store in your camera bag ready to tear open as needed.



HoodEYE$_{tm}$ for shooters who wear glasses!

HoodEYE links your eye to camera for improved viewfinder optics. New oversized eyecup, designed specifically for use with glasses, reaches back to cover light leaks behind your glasses. Easily upgrade your camera eyepiece in seconds. Five models fit all Canon and Nikon Digital SLR cameras. Patented, self locking mount system keeps HoodEYE securely in place. When ordering, make sure to order the model for your camera with a G at the end for Glasses.

PATENT US 8,831,142 B2

Inspired Imaging Tools$_{tm}$

www.HoodmanUSA.com 800.818.3946

3510 lines per picture height. That's almost 300 more than the Sony Alpha 900's 24.6MP sensor delivered at its lowest sensitivity of ISO 100. It's also more than Nikon's D3X, which turned in 3180 lines in the same test.

The D800 held resolution above 3000 lines all the way to ISO 3200, where it resolved 3330 lines. At ISO 6400 it fell to 2900, then 2720 at ISO 12,800, and 2470 at ISO 25,600. Even at its worst, the D800 out-resolves the D700 at its best—that camera delivered 2420 lines at ISO 100.

While the D800 managed to hold noise to a Low or better rating only up to ISO 800, it remained in acceptable territory up to ISO 3200. If you apply heavy noise reduction, you should be able to bring ISO 6400 down to acceptable levels while maintaining a lot of resolving power. If you don't plan to print an image very large, you will occasionally be able to get good results at ISO 6400.

In our autofocus test, the D800 proved slightly slower than the D700 in very bright light, but either the same or faster in average and dim lighting. It managed to focus in less than a second in the dark of EV –1, which is quite impressive, though the same can be said for the Canon 5D Mark III. In fact, the Mark III proved a bit faster than the D800 in very bright light. At the brightest levels used in our test, the Canon focused in 0.37 sec, compared with the D800's 0.43 sec. The difference was most significant at EV 6 (think a well-lit kitchen) where the Canon beat the Nikon 0.45 sec to 0.54 sec. The D800 returns the favor at EV 1 though, beating the Canon 0.78 to 0.89 sec. Both provide adequately fast AF and both do an exemplary job of tracking during bursts.

Though the cluster of buttons atop the drive mode dial will seem familiar to Nikon shooters, the D800 also has a button for ISO in that space.

In the Field

As is almost always the case with Nikon's DSLRs, the D800 is a pleasure to hold. The grip is sculpted with a nice divot on the inner portion for your fingertips. Two assignable function buttons adorn the front of the camera body, and there are dedicated buttons and dials for all the major settings you'll need while shooting. (Canon's 5D Mark III has a minor edge in control customization, thanks to the handy menu that shows which buttons you're changing as you assign

SHOWN WITHOUT LENS

TEST RESULTS

LOOKING FOR

CA$H?

WE'VE GOT IT

We Pay Top Dollar
for rare pieces & collections

Extra Cash Bonuses
for current models

Easy online quotes
at: adorama.com/sell

We want to buy your used or unused Photo, Video and Lighting equipment!

Adorama spent millions of dollars in 2010 buying 35mm, Medium & Large Format, Scopes, Video and Digital equipment, **paying above market value**. Adorama pays **top dollar** for individual items, rare pieces, collections and estates.

3 SMALL STEPS FOR GIANT PAYOUTS!

1 / FAST
We can arrange a **FREE** UPS insured pickup in the USA, or you may send it to us at your convenience.

2 / SIMPLE
Expect one of our agents to contact you as soon as your equipment is evaluated.

3 / SMOOTH
Your check, direct deposit or trade will be sent out promptly.

If you are not pleased with our offer, we will return the equipment at our expense.

ADORAMA TRADE+USED

Find out the value of your equipment:

Phone:
800-223-2500

Online Quote:
adorama.com/sell

e-mail:
used@adorama.com
Include your phone number

Bring it:
42 West 18th Street
New York NY 10011

Ship it:
Adorama
Att. Used Department
7 Slater Drive
Elizabeth, NJ 07206

them.) Both cameras offer top-notch control systems with plenty of opportunity to tailor them to your shooting style.

As it did with the D4, Nikon has enabled uncompressed 1080i video output through the HDMI port of the D800. This gives the Nikon an advantage over almost any other DSLR in the video department. And the compressed video is quite nice, too, as is typical of a DSLR in this class. The D800 also has a stereo microphone input with level controls and a headphone output for monitoring that sound. The built-in mic is mono.

The D800's burst is limited to 4 fps in full-frame shooting, likely due to file size. The buffer can hold up to 17 of Nikon's 14-bit lossless RAW files (NEF). Nikon doesn't state the true capacity of the buffer for JPEGs, cutting off testing at 100 images. But rest assured that with a fast memory card, you can get well over 100 shots in a JPEG burst.

As usual, Nikon's Matrix evaluative metering does an excellent job, even in difficult scenes. You can definitely confuse it when framing abstract images, but for most portrait and landscape photography it will be right on the money.

The Nikon D800's pop-up isn't particularly special as built-in flashes go, but at least the camera has one. (Curiously, Canon still doesn't include a pop-up flash on the 5D Mark III.) A pop-up lets you trigger off-camera accessory flash units wirelessly—reason enough to want to own one.

D700 shooters—or any advanced Nikon shooter, really—should have no problem transitioning to the D800 from their camera body. But a fair number of buttons have moved around compared to other Nikon models, so you should make a point to familiarize yourself with the body before an important shoot.

You'll also want to bring a high-capacity memory card with you. Some of the JPEGs we captured were as large as 25MB, and some RAW files topped 65MB. Converting these will either take serious computing power or require more time than you're accustomed to with your current camera.

The Bottom Line

The biggest question to ask yourself about the Nikon D800 is whether you need that many pixels. Don't get us wrong—the detail in the D800's images is outstanding. But your hard drives will fill up quite fast if you plan to hold on to RAW files—even quicker if it's both RAW and JPEGs. If you don't plan to print extremely large images, the D800 might be more than you need. Still, it's nice to know you can get a lovely 20x30-inch print at 240 dpi.

Another upside to the huge files is that they allow for much more cropping than we've ever been able to do with digital images (medium-format excepted). Caught without a long lens when the space shuttle *Enterprise* was recently flown over New York City, one of our editors shot using a racked out 24–70mm f/2.8 Nikkor. The image was still sharp and detailed when cropped by about 90 percent (see the image on our Facebook page).

Still photographers will have to decide whether they really need the D800's firepower. But if you're shooting serious video and plan to use an external recorder to capture the HDMI output, you need not think twice about the D800. *—Philip Ryan*

A second version of the D800 is available without the anti-aliasing filter that normally sits in front of the sensor. This version, called the D800E, was made by request for pro video shooters. Still photo shooters won't get any serious benefit from the D800E, though the lack of that filter may allow for a tad more sharpness.

SPECIFICATIONS

IMAGING: 36.3MP effective, FX format (full-frame) CMOS sensor captures images at 7360x4912 pixels with 14 bits/color in RAW mode.

STORAGE: CF and SD store TIFF, JPEG, NEF RAW, and RAW + JPEG files.

BURST RATE: Full-sized JPEGs (Fine mode), up to 100 shots at 4 fps; RAW (14-bit uncompressed), up to 16 shots at 4 fps; TIFF, up to 16 shots at 4 fps.

AF SYSTEM: TTL phase detection with 51 illuminated focus points (15 cross-type); single-shot and continuous AF with 3D focus tracking. AF points can be grouped and selected by area. Tested sensitivity down to EV –2 (at ISO 100, f/1.4).

LIVE VIEW: TTL phase-detection or contrast-detection autofocus.

SHUTTER SPEEDS: 1/8000 to 30 sec, plus B (1/3-, 1/2-, or 1-EV increments); 200,000-cycle rating.

METERING: TTL metering with 91,000-pixel RGB sensor; 3D Matrix (evaluative), centerweighted, and spot (approx. 1.5% of viewfinder). EV 0–20 (ISO 100).

ISO RANGE: Normal, ISO 100–6400 (in 1/3-EV increments); expanded, ISO 50–25,600.

VIDEO: Records at 1920x1080 at 30/24 fps; 1280x720 at 60/30 fps; in H.264 MPEG-4 MOV format; built-in mono microphone; stereo minijack input; uncompressed output via HDMI.

FLASH: Built-in pop-up with iTTL autoflash and wireless control of optional flash units, GN 39 (ISO 100; feet); flash sync to 1/250 sec.

VIEWFINDER: Fixed eye-level pentaprism.

LCD: 3-in. TFT with 921,000-dot resolution; 5-step brightness adjustment.

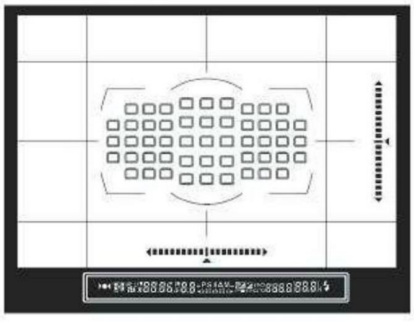
OUTPUT: USB 3.0, mini HDMI video, composite video and analog audio.

BATTERY: Rechargeable EN-EL15 Li-ion, CIPA rating 900 shots (with optical viewfinder).

SIZE/WEIGHT: 5.7x4.8x3.2 in., 2.1 lb with a card and battery.

STREET PRICE: $3,000, body only; D800E version, $3,300, body only.

INFO: www.nikonusa.com



VIEWFINDER TEST: Accuracy, 100% (Excellent); Magnification, 0.7X (Very Good).

Top British Photographer

Karl Taylor is helping thousands of photographers take better pictures, and now he can help you too.

The Karl Taylor Photography Masterclass Series is now available in the USA and brings you exceptional knowledge at exceptional value.

Find out more and get a FREE photography course today!

www.KarlTaylorPhotography.com/FREE

> "I wish I had got this about 5 years ago... well presented, clear and simple but still explaining some of the more complex issues of photography. This will progress you forward years worth."
>
> Alan Reid – County Down

Toll free order line : 800-408-2228

Karl Taylor Photography Masterclass

Learn Faster. Learn Better.

ZIPSHOT®
COMPACT, ULTRA-LIGHT TRIPODS
Spring Open in Seconds

2 Tripod legs spring open in seconds.

1 To use, simply release the two red cords.

3 Mount a camera and you're ready to shoot.

THE PERFECT TRAVEL TRIPODS

ZipShot®
44" (112 cm) standing
15" (38 cm) folded
11 oz. (312 g)

ZipShot® Mini
9 oz. (255 g)
9" (23 cm) folded
28" (71 cm) standing

- **Ultra-lightweight, Compact & Convenient.**
- **Quick.** Tripod legs spring open in seconds.
- **Easy to Carry.** Attaches to camera bags and luggage.
- **Sturdy.** Heavy-duty, metal ball-head with strong aluminum legs.
- **Holds Cameras up to 3 lbs.** (1361g).

The ZipShot® Mini fits in the side pocket of many camera Bags!

Also Available
Quick-Release ZipShot® Accessory Kit
Allows quick attachment and removal of any point & shoot camera or DSLR up to 3lbs. (1361g) that has a ¼-20 tripod screw insert.

Video demonstration and more at
www.zipshottripod.com

tamrac®

©2011 Tamrac, Inc. Patent Pending

DEBBIE GROSSMAN (3)

Still the One

PHOTOSHOP, NOW IN CS6, REMAINS THE BEST EDITOR FOR RETOUCHING PHOTOS

IN A WORLD where computing is going mobile, where we are more likely to view our images on screens than in print, and tasks such as retouching and color toning are becoming more automated, an application that depends on a powerful computer and high-quality display is becoming an increasingly niche product.

And now that Adobe Photoshop Lightroom 4 has even better tools for applying selective adjustments (not to mention Curves), Photoshop itself has become, for many photographers, a special-occasion application. It's the tool that you turn to when you need to perfect or transform an image in a way that's impossible using any other application. For hardcore retouching, Photoshop still has no equal, and the improvements in CS6 make it better than ever.

Whole New Look

You may have noticed that the interface in previous versions of Photoshop lacked visual continuity—how many different kinds of buttons or sliders could you count? As with a house that has been added to over time, you could read Photoshop's history in the style of its tools and icons. For an application that is used to

Photoshop's new interface has a visual consistency that previous versions lacked. Note the new locations of both Mini Bridge and the Adjustment Layer's Properties panel.

make so many beautiful things, the hodgepodge aesthetic is ironic.

So CS6 was given a total design overhaul. There's a new, darker interface (which you can adjust back to the old tone, if you prefer), and only one kind of slider, one kind of button, and so on. The redesign is disorienting at first—the look is so different that, even though the locations of most tools have not changed, at first we felt that we had to relearn to navigate the program. But after a week we were used to it—and liked it better. Now we can't imagine going back.

Unfortunately, this interface redesign does not extend to Adobe Camera Raw. ACR is great because it's loaded with all the same tools (and the same algorithms) for RAW conversion that come with Lightroom. But those tools are packed into an interface that dates back to the dark ages of ACR. The tabs are labeled with tiny, difficult-to-parse icons, and the interface is old-school light gray. We're not sure whether Adobe is just waiting to upgrade this until the next version of Photoshop, or whether the company is just providing more incentive to use Lightroom instead. It's important to have RAW conversion in Photoshop, but the ACR user experience now lags far behind Photoshop's and Lightroom's.

Auto Improvements

Much as you'll rarely meet a photographer who self-identifies as a beginner (somehow we are all intermediate or advanced), you'll rarely meet a Photoshop user who admits to using the auto adjustments in Levels, Curves, and Brightness and Contrast. But many of us do, and Adobe has the research to prove it.

Since these tools are so (secretly) popular, Adobe has overhauled them and added a new option to all three: Enhance Brightness and Contrast. The algorithm is actually content-aware—it uses image data from thousands of hand-corrected photographs to make decisions

SPECIFICATIONS

MINIMUM SYSTEM REQUIREMENTS
Fast processor, 1GB RAM, OpenGL 2.0-capable system, Windows XP or Mac OS 10.6.8 or 10.7. **PRICE:** $199, upgrade, or $699, full; www.adobe.com.

ADOBE PHOTOSHOP CS6
WHAT'S HOT
The first real interface redesign in years.
WHAT'S NOT
ACR is more ungainly than ever.
WHO IT'S FOR
Photographers who do intricate compositing and retouching.

Kenko
TELEPLUS DG SERIES
EXTENSION TUBE SET
GET CLOSER

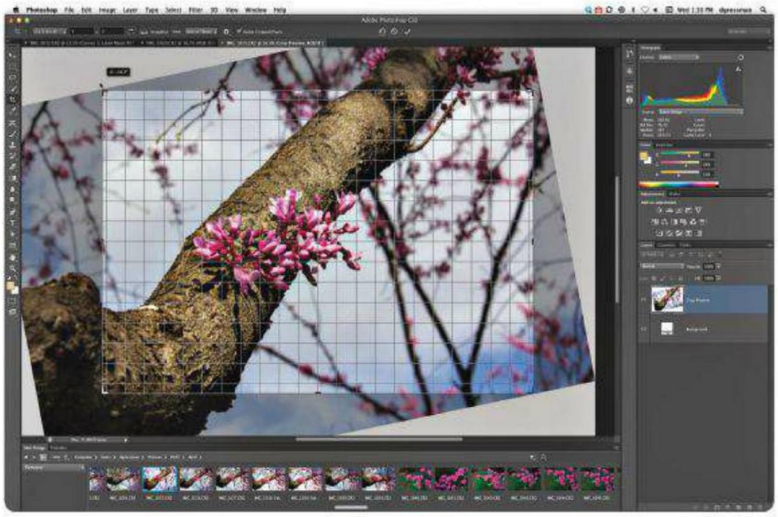
for
MICRO FOUR THIRDS
and
SONY E-mount

WITH

WITHOUT

This set has two AF extension tubes, a 10mm and a 16mm for either Micro 4/3rds or SONY NEX cameras. Kenko also has the regular AF Extension Tube set of 3 (12mm, 20mm and 36mm) for Canon, Nikon and Sony digital SLR cameras.

EXCLUSIVE DISTRIBUTION BY:
THK PHOTO PRODUCTS, INC.
Tokina • HOYA • Kenko • SLIK
7642 Woodwind Drive, Huntington Beach, CA 92647
Visit our website for more information at
www.thkphoto.com



The revised Crop tool can save your cropped pixels in case you need to revise later. Our only gripe: The crop border surrounds your image whenever the tool is selected, even if you're working on something else, such as an Adjustment Layer.

about how to best fix your image. The new auto fixes usually give you a better starting point for your adjustments than those in previous versions. But we still like to add the finishing touches ourselves.

Content-aware fill was the splashiest new feature of the CS5 release, and while it is rarely spot-on in the data it creates to fill or patch over image areas, it has proven incredibly useful when making a draft of a composite and as a beginning point for retouching. CS6 adds a whole new content-aware tool: Content Aware Move. This lets you select a part of your image—say, a figure—and move that figure to another part of the image. The tool fits your subject into a new location while also intelligently filling in the area where it came from. Like the technology in CS5, it's still hit or miss, and it doesn't work as well when you need your figure or object to appear nearer or farther in the picture (it can't shrink or enlarge accordingly). But we suspect it will prove to be quite handy.

The new auto feature that we are easily most excited about? Background saving. Who hasn't lost hard work to a system crash that happens before you've remembered to save? Finally, Photoshop will auto-save your file in the background and recover it after a crash. Background saving is also useful on finished files—while saving a biggie, Photoshop is no longer locked up. You can continue working on another image as the save chugs away.

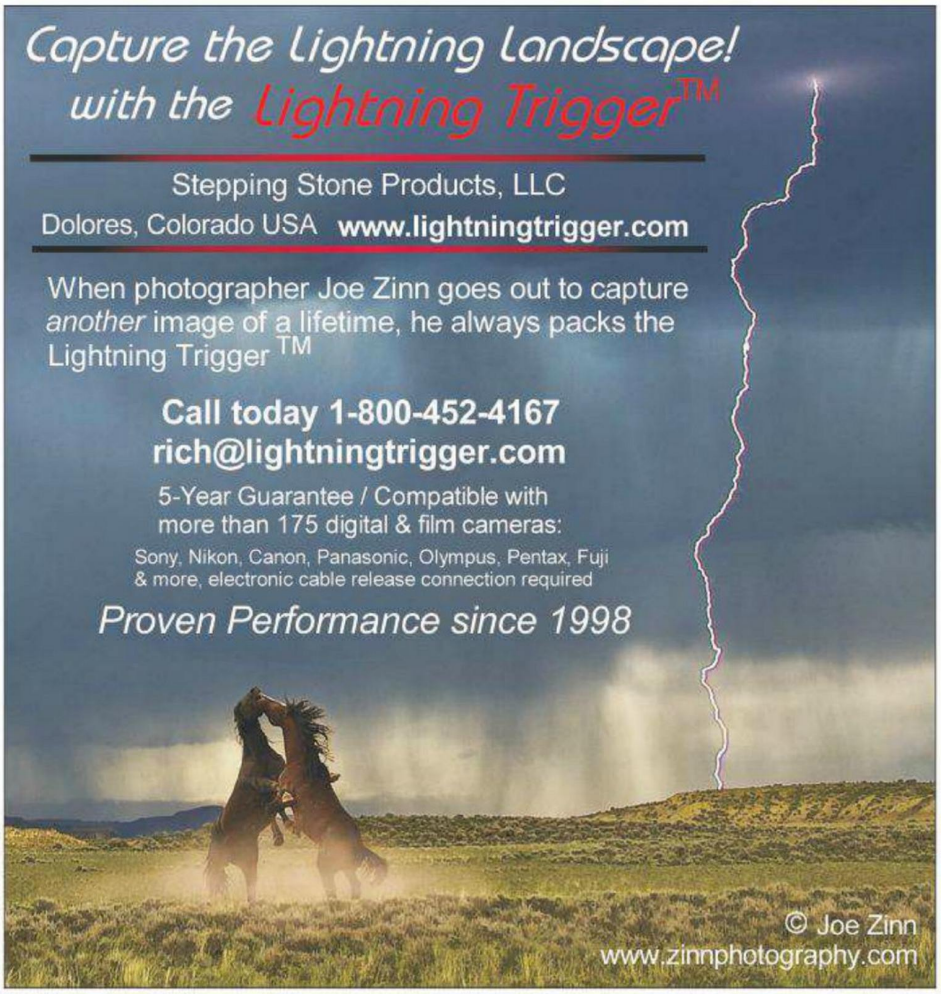
Tool Technology

Auto features aren't the only ones that got a bump in CS6. Such classic tools as Liquify, Transform, Crop, and the relatively new Puppet Warp work better, faster, and in real time with the Mercury Graphics Engine. The enhancements to Liquify are especially useful, as that tool would choke on large files in the past.

We love the new version of the Crop tool, which reminds us much more of the functionality in Lightroom, particularly because you can now have Photoshop save your cropped pixels so you can go back and re-crop. The straighten tool is much more logical, as well, and works better then the stopgap straighten function implemented in the last release.

The Select > Color Range command has always been a good starting point for creating a selection, and now it adds an option for selecting skin tones alone, as well

CONTINUES ON PAGE 108


Capture the Lightning Landscape!
with the Lightning Trigger™
Stepping Stone Products, LLC
Dolores, Colorado USA www.lightningtrigger.com
When photographer Joe Zinn goes out to capture another image of a lifetime, he always packs the Lightning Trigger™
Call today 1-800-452-4167
rich@lightningtrigger.com
5-Year Guarantee / Compatible with more than 175 digital & film cameras:
Sony, Nikon, Canon, Panasonic, Olympus, Pentax, Fuji & more, electronic cable release connection required
Proven Performance since 1998
© Joe Zinn
www.zinnphotography.com

check our website or call for up-to-the-minute prices & information! email your order or inquiry to us at: sales@beachcamera.com

BEACH CAMERA®

Where the Customer Always Comes First

800-634-1811

Toll-free Customer Service 800-634-1811 Dial 2
or email us at CS@beachcamera.com
Retail Showroom: 732-968-6400
203 Route 22 East Green Brook, NJ 08812
Now Shipping Internationally

Sunday . 10:00am-6:00pm Mon-Thurs 9:30am-7:00pm Friday 9:30am-2:00pm

All products are brand new, factory fresh and include USA warranty!

www.beachcamera.com

Corporate, School and Government purchase orders accepted! Fax to: (732) 424-5136

Digital SLR's

Canon EOS 5D Mark III

The Power to Create NEW!

A newly designed 22.3 MP full-frame Canon CMOS sensor, Canon DIGIC 5+ Image Processor, and shooting performance up to 6.0 fps provide exceptional clarity and sharpness. Special optical technologies like the 61-Point High Density Reticular AF and an extended ISO range of 100-25600 make the EOS 5D Mark III ideal for shooting weddings in the studio or out in the field, and great for still photography. Advanced professional-level HD video capabilities make it possible to capture beautiful cinematic movies in EOS HD quality.

Samsung NX1000 NEW!

Style and Perfection, All in One

Samsung's mirrorless NX1000 interchangeable lens camera sports a 20.3MP CMOS sensor, a 3-" TFT LCD & records HD video at 30 FPS. Built-in Wi-Fi connectivity lets you connect to a wireless network. Save photos & videos directly to a computer or cloud service while you shoot, email them, print them wirelessly, or upload them straight to Facebook, Twitter or YouTube. You'll never have to worry about losing a great shot, running out of storage space, or remembering to bring the right cable along.

Sony Alpha NEX-5N

Mini Marvel

Get a perfectly pocket-sized 16.1MP interchangeable lens camera made for capturing beautiful stills on the go at up to 10 frames per second. Record in Full HD 1080/60p or 24p video, take astonishing pictures in low-light with the large Exmor™ APS HD CMOS sensor or get beautiful panoramic shots in 2D or 3D. Put control at your fingertips with the highly responsive, conveniently tiltable 3.0" Live View touch screen LCD.

Tamron AF18-270mm F/3.5-6.3 Di II VC (Vibration Compensation) LD Aspherical (IF) Macro

New eyes for industry

The Longest Steadiest Lens on Earth

$100 Mail-In Rebate
Thru 6/30/12

The AF 18-270 covers an angle of view equivalent to that of a 28mm wideangle to a 419mm ultra telephoto with just one lens, letting the user capture once-in-the-lifetime images of panoramic landscape images or close-up pictures of children smiling, without having to get too close to the subject and without having to change lenses.

Camcorders

CALL OR LOG ON FOR CURRENT INSTANT REBATES AND PROMOTIONS

Canon imageANYWARE Vixia HF M52 NEW!

Pro Image Quality with Compact Convenience

The VIXIA HF M52 camcorder has 32GB of internal memory to record up to 12 hours of stunning HD video. Built-in Wi-Fi™ means you can immediately upload video directly to YouTube™, Facebook™ or your own home computer. Upload video anywhere with your iPhone™, iPad™ or iPod Touch™, and enjoy wireless viewing on your DLNA™-compatible TV.

Vixia HF M500 NEW!

A brilliant blend of capability and convenience.

VIXIA HF M500 sports a pro-level Canon HD CMOS Pro Image Sensor and a Flat Touch Panel LCD. Intelligent IS and SuperRange Optical Image Stabilization designed for Canon's 10x HD Video Lens make every scene clear and steady, and new built-in features make it easy to give your videos added creativity.

XA10 Pro HD

The On-the-go Videographer's Dream

This feature-rich, professional model records Full HD 1080p to either its 64GB internal flash drive or 2 SDXC-compatible card slots. Including the ability to record simultaneously to both cards for instant backup. It includes a detachable handle for low-angle shooting and portability. A Genuine Canon 10x HD Video Lens delivers a wide, flexible zoom range (35mm equivalent range 30.4mm-304mm) and smooth, pleasing backgrounds.

Vixia HF R300

Express Yourself like Never Before

The VIXIA HF R300 is equipped with flexible features to suit your shooting and sharing needs. Superb imaging is ensured with Canon's 3.28 Megapixel Full HD CMOS Image Sensor and DIGIC DV III Image Processor. Full HD Video is steady and clear even at the large end of the 51x Advanced Zoom

We Carry Digital Cameras, Lenses, Flashes & Accessories, Camcorders, Printers, Scanners, External Hard Drives, Binoculars, Scopes, Television, Home Theater, DJ Equipment, Computers, Tablets, Car Electronics, Toys & Games, Sporting Goods, Housewares & so much more.

Canon · Nikon · SAMSUNG · SONY · Panasonic · hp invent · OLYMPUS · At the heart of the image · PENTAX · TAMRON · Lexar · CELESTRON · SanDisk · WD Western Digital · JVC · TOSHIBA · GoPro Be a HERO · YAMAHA · LG · FUJIFILM · Cuisinart · GARMIN · Kodak

Corporate, School and Government purchase orders accepted! Fax to: (732) 424-5136

All merchandise is brand new and factory fresh. Prices Are For Mail Order Only. 10% deposit required for COD orders. No restocking fee will be charged if merchandise is returned in pristine condition (returns are only subject to a 10% restocking fee if package is opened). Exchange or refund less shipping and handling within 15 days of receiving merchandise only if returned in original mint condition with original package and unfilled warranty cards. Please call 1-800-634-1811 Dial 2 for return authorization before returning product.Prices effective through end of monthly issue. Not Responsible for Typographical or Human Errors. All credit cards gladly accepted without any additional charges. New Jersey Resident add 6% Sales Tax. Prices are subject to verifiable manufacturer's price increases & decreases. Thank you for shopping with us. Fedex Saver shipping charges: minimum $9.95 under $100. Over $100 add $5.00 for every $500 increase. Caller or check website for further details. Ask for your shipping total. *Asterisk indicates price listed is after mfg's rebate. We appreciate your business every day! Prices Valid Thru Monthly Coverdate. Policy applies to all Beach Camera Advertisements. Shop on line 24 hours at our website www.beachcamera.com. Thank you for shopping with Beach!

INTRODUCING!

POP PHOTO POSES with Lindsay Adler

Wedding Poses

PopPhoto Poses with Lindsay Adler is the essential posing guide for photographers looking to add creative and unique posing options for their clients.

Each photo includes the tips and techniques to easily direct and shoot the bridal couple on their special day.

Back
Popular Photo Poses with Lindsay Adler
Dip and Kiss
Lens 85 mm 1.4
Aperture f/2.2
ShutterSpeed 1/500 sec
Focus Length 85 mm
ISO 200
Prompts and Tips
Lighting and Setup
Effects
Bride and Groom are facing each other, his front arm at his side, his back arm reac
supporting her. Groom is leaning in to kiss the Bride, who is leaning back (in a dip
arm hangs straight at the shoulder, holding her bouquet. A low camera angle helps
look taller and more slender.
Posing Overview
Video & Tips
My Favorites
Settings

NOW AVAILABLE FOR iPHONE AND iPAD!

Lindsay Adler is a portrait and fashion photographer based in NY. Her images have appeared in dozens of publications internationally. Lindsay has authored two photography books and teaches thousands of photographers annually how to improve their vision and craft.

PopPhoto Poses with Lindsay Adler

Available on the App Store

800-947-9980
212-444-6666
Fax: 212-239-7770

420 Ninth Avenue
Corner of 34th Street
New York, N.Y 10001

Store & Mail Order Hours: Sunday 10-5 | Mon-Thurs 9-7 | Friday 9-1 EST/9-2 DST | Closed Saturday

B&H PHOTO - VIDEO - PRO AUDIO
The Professional's Source™

Over 300,000 products, at your leisure
www.BandH.com

B&H Online

- **Search Capabilities**
  Find products fast
- **Podcasts**
  B&H experts provide essential product information in video interviews
- **Product Demos**
  View products from every angle, right on your computer screen
- **Customer Reviews**
  Useful feedback from other customers to help you decide
- **Live Help**
  Chat online with support staff

When in New York,
Visit our SuperStore

- Over 70,000 square feet of the latest gear
- The most knowledgeable Sales Professionals
- Hands-on demos
- Convenient free parking available

Upcoming Holiday Schedule

July 29 ..... Closed

We Buy, Sell, and Trade
Used Equipment

888-520-3010
Speak to a Sales Associate

www.BandH.com/used
Shop conveniently online

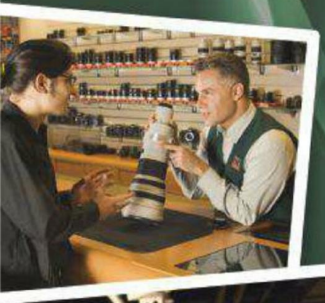
Prices, specifications, and images are subject to change without notice. Manufacturer rebates are subject to the terms and conditions (including expiration dates) printed on the manufacturers' rebate forms. Not responsible for typographical or illustrative errors. © 2000-2012 B & H Foto & Electronics Corp.
NYC DCA Electronics Store Lic. #0906712; NYC DCA Electronics & Home Appliance Service Dealer Lic. #0907905; NYC DCA Secondhand Dealer – General Lic. #0907906

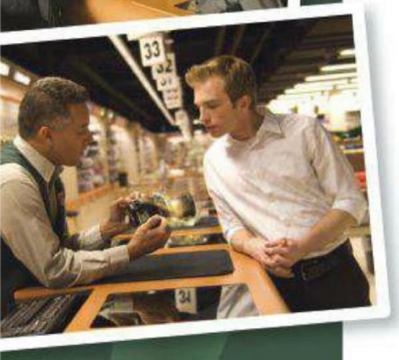
B&H PHOTO - VIDEO - PRO AUDIO

The Professional's Source™

When in New York, Visit our SuperStore

420 Ninth Ave.
Corner of 34th Street
New York, N.Y. 10001





- Over 70,000 square feet of the latest gear
- The most knowledgeable Sales Professionals
- Hands-on demos
- Convenient free parking available

Subscribe to our free Catalog
BandH.com/catalog
212-444-6633

Canon Powershot Elph 110HS

- 5x Optical Zoom • 4x Digital Zoom
- 4.3-21.5mm f/2.7-5.9 (35mm equiv: 24-120mm) • 3.0" LCD
- SD/SDHC/SDXC Card Slot
- Full 1080p HD Video with Stereo Sound
- Super Slow Motion Movie Records 240fps

#CAPSE110 Black, Blue, Green, Pink, Red, Silver*

16 Mega Pixels

Canon Powershot G12

- 2.8" Vari-Angle LCD • 1280 x 720p HD Video Capture • Stereo Sound for Video
- 5x Optical Zoom • 4x Digital Zoom
- 6.1-30.5mm f/2.8-4.5 (35mm equiv: 28-140mm) • SD/SDHC/SDXC Card Slot
- RAW File Mode • Dim.: 4.41 x 3 x 1.9"

*#CAPSG12**

10 Mega Pixels

Canon PowerShot G1 X

- 3.0" Vari-Angle LCD • Full 1080p HD Video • Optical Viewfinder
- 4x Optical Zoom • 4x Digital Zoom
- 15.1-60.4mm f/2.8-5.8 (35mm equiv: 28-112mm) • SD/SDHC/SDXC Card Slot
- Manual & Numerous Other Shooting Modes

#CAPSG1X

14 Mega Pixels

Nikon Coolpix AW100

- 3.0" LCD • 5x Optical Zoom
- 5-25mm f/3.9-4.8 (35mm equiv: 28-140mm) • SD/SDHC/SDXC Card Slot
- Waterproof to 33' Deep
- Shockproof for Drops up to 5'
- Full HD 1080p Video with Stereo Sound

#NICPAW100 Black, Blue, Orange*

16 Mega Pixels

Panasonic Lumix DMC-LX5

- 3" LCD • HD Video Recording
- 3.8x Optical Zoom • 4x Digital Zoom
- 5.1-19.2mm f/2-3.3 (35mm equiv: 24-90mm) Leica DC Vario-Summicron
- SDHC/SDXC Card Slot • Raw Recording
- Dimensions: 4.32 x 2.58 x 1.69"

#PADMCLX5 Black, White*

10 Mega Pixels

SONY CyberShot DSC-W610

- 2.7" LCD • 720p HD Video
- iAuto Mode • 4x Optical Zoom
- 4.7-18.8mm f/2.8-5.9 (35mm equiv: 26-105mm) • Face Priority Function
- MS Duo, SD/SDHC/SDXC Card Slot
- Sweep Panorama Mode Up to 360°

#SODSCW610 Black, Blue, Green, Pink, Silver*

14 Mega Pixels

MEMORY CARDS

CF Compact Flash

	Delkin				Kingston				Lexar			Sandisk			
	125x	500x	700x	1000x	Std	Elite Pro 133x	Ultimate 266x	Ultimate 600x	400x	600x	1000x	Ultra 30 MBs	Extreme 60 MBs	Extreme Pro 90 MBs	Extreme Pro 100 MBs
8GB	19.95	22.50	—	—	13.99	16.95	—	—	36.95	49.95	—	29.95	49.95	—	—
16GB	39.95	37.50	54.99	119.99	—	—	29.95	57.95	65.50	118.50	139.00	54.95	84.95	129.95	—
32GB	79.95	68.95	99.99	199.99	—	—	58.50	99.95	124.95	159.95	246.79	—	153.95	239.95	—
64GB	—	149.95	224.99	399.99	—	—	—	—	214.30	—	459.95	—	307.95	454.95	—
128GB	—	—	CALL	649.99	—	—	—	—	376.95	—	799.95	—	—	—	879.95
256GB	—	—	—	999.99	—	—	—	—	—	—	—	—	—	—	—

MSDUO Memory Stick Pro Duo

	Sony	
	Mark II	Pro-HG HX
2GB	13.63	—
4GB	18.99	—
8GB	—	34.95
16GB	—	59.95
32GB	—	105.95

SDXC-UHS-1 Extended Capacity

	Delkin	Kingston	Lexar		Sandisk			Panasonic
	Class 10 600x	Class 10 35 MBs	Class 10 400x	Class 10 600x	Class 10 30 MBs	Class 10 45 MBs	Class 10 90 MBs	Class 10 45 MBs
64GB	179.99	238.74	99.95	169.50	97.50	103.95	212.95	209.99
128GB	261.95	—	193.50	—	—	233.95	—	—

Note: Not all devices support SDXC cards

SDHC-UHS-1 Ultra High Speed

	Delkin	Kingston	Lexar		Sandisk		Panasonic		Sony
	Class 10 600x	Ultimate XX 35 MBs	Class 10 400x	Class 10 600x	Ultra 30 MBs	Extreme Pro 90 MBs	Gold 25 MBs	Pro Class 10	Pro Class 10
8GB	26.99	34.95	21.95	—	—	28.99	26.95	54.95	19.99
16GB	47.99	69.95	33.95	49.50	21.95	56.11	50.57	113.50	29.89
32GB	94.99	142.90	49.95	89.95	49.50	104.50	101.97	199.16	62.84

SD HC Secure Digital High Capacity

	Delkin		Kingston				Lexar		Sandisk				Sony		
	Pro Class 6	Pro Class 10	Standard Class 4	Standard Class 6	Ultimate X Class 10	Micro Class 4 Multi Kit	Std Class 4	Platinum II 100x	Std Class 4	Ultra	Extreme Class 10	Micro Class 4	Standard Class 4	Standard Class 10	Micro Class 4
4GB	—	7.95	—	—	—	7.50	6.01	6.95	7.95	—	12.95	6.95	6.95	—	7.90
8GB	12.95	10.04	6.95	16.95	16.95	9.50	8.99	10.79	9.95	10.40	16.95	10.95	9.95	—	9.95
16GB	—	15.95	13.50	19.95	19.95	14.95	15.95	17.95	13.23	16.50	28.50	14.95	19.95	20.95	—
32GB	—	29.95	36.50	—	49.95	39.95	28.95	33.95	32.95	44.95	59.50	34.50	39.95	39.99	—

Oben™

You're On Steady Ground

Travel Tripods

Sturdy yet superbly lightweight tripods with legs that fold upward 180° to create an extremely compact package for transport - with the included head attached. For further versatility for travelers, one of the legs unscrews from the chassis and attaches to the head & carbon-fiber center column to form a working-height monopod. These full-sized tripods with head ensure a stable base for any DSLR body/lens combination with multiple accessories, or for a compact HD video camera.

- One Leg, Column & Head Form Monopod • Removable Head
- Forged Aluminum Chassis • Pan & Tilt Control • Retractable Spikes in Feet

Model	Included Head	Load Capacity	Max. Height	Folded	Weight	SKU #	Price
Anodized Aluminum Series with Head							
AT-3400	BA-00T	6.6 lb	56.7"	15"	3 lb	#OBAT3400BA00	$149.95
AT-3410	BA-00T	6.6 lb	59.4"	16.5"	3.4 lb	#OBAT3410BA00	$224.95
AT-3420	BA-0T	11 lb	62.6"	17.7"	4.2 lb	#OBAT3420BA0T	$259.95
6x Carbon Fiber Series with Head							
CT-3400	BB-0T	12.4 lb	56.7"	15"	3 lb	#OBCT3400BB0T	$349.95
CT-3410	BB-0T	16.8 lb	59.4"	16.5"	3 lb	#OBCT3410BB0T	$399.95
CT-3420	BB-1T	22 lb	62.8"	17.7"	4 lb	#OBCT3420BB1T	$449.95
CT-3500	BB-0T	12.4 lb	53.3"	12.8"	2.5 lb	#OBCT3500BB0T	$349.95
CT-3510	BB-0T	16.8 lb	60.6"	15.5"	3.2 lb	#OBCT3510BB0T	$399.95
CT-3520	BB-1T	22 lb	64.8"	16.5"	4 lb	#OBCT3520BB1T	$469.95

OLYMPUS PEN E-P3 DSLR

- 3" Touch Screen OLED
- TruePic VI Image Processor
- 4/3 Full Frame Zuiko Lenses
- SDHC/SDXC/UHS-1 Card Slot
- 3 Mode Image Stabilization
- 12,800 ISO & Built-In Flash
- 1080/60i HD Movie Capture
- All Metal Body with Full-Advanced Control
- Available in Black, Silver or White

*Kit with 17mm Zuiko Lens .....#OLEP317**
*Kit with 14-42mm Zuiko Lens.....#OLEP31442**

12 Mega Pixels

Panasonic Lumix DMC-GH2 Mirrorless System Camera

- 1920x1080 60i HD Video
- 3" Free-Angle LCD
- Micro 4/3 Lens Mount
- SD/SDHC/SDXC Card Slot
- Touch Screen Control for Stills/Video
- Dust Reduction System
- Dolby Stereo Sound with Video
- Fastest Level of Light Speed AF
- MEGA O.I.S. (Optical Image Stabilizer)

Kit with 14-42mm G Vario Lens..... #PADMCGH2K1

16 Mega Pixels

Panasonic Lumix DMC-GX1 Mirrorless System Camera

- 1080/60i HD Video Capture
- 3.0" Touch Enabled LCD
- Micro 4/3 Lens Mount
- Built-In Flash, Hot Shoe and Mode Dial
- SD/SDHC/SDXC Card Slot
- Movie iA and Creative Movie
- Lumix LightSpeed Focusing
- Super O.I.S. (Optical Image Stabilizer)
- Available in Black or Silver

*Kit with 14-42mm G Vario Lens.....#PADMCGX1XK**

16 Mega Pixels

SONY Alpha NEX-5N DSLR

- BIONZ Image Processor
- Tiltable 3.0" Touch LCD
- Accepts Sony E-Mount Lenses
- Up to 10 FPS Shooting
- 1080/60p HD Movie Capture
- SD/SDHC Card Slot
- Photo Creativity Touch
- Sweep Panorama
- HDMI Output
- Available in Black or Silver

Black with 18-55mm Lens.....#SONEX5NKB
Silver with 18-55mm Lens.....#SONEX5NKS

16 Mega Pixels

SONY Alpha SLT-A57 DSLR

- 3.0" 921,600-dot Tiltable LCD
- Full HD 1080p with AVCHD 2.0
- Sony A-mount Lens Mount (1.5x factor)
- MS/MS Pro & SD Media Slot
- Auto Portrait Framing
- ISO 100-16000
- Tru-Finder EVF

Body Only..... #SOSLTA57
Kit with 18-55mm Lens .....#SOSLTA57K

16 Mega Pixels

SONY Alpha SLT-A77 DSLR

- Upgraded BIONZ Image Processor
- 2nd Gen Translucent Mirror Design
- OLED Electronic Viewfinder
- Swivel/Tilt 3.0" LCD Screen
- Uses Sony Alpha Lenses (1.5x factor)
- Built-In GPS
- Dual Media Slots
- 1080p HD Movie Capture
- SteadyShot INSIDE Stabilization

*Body Only..... #SOSLTA77V**

24 Mega Pixels

OLYMPUS

Flash System

FL-300R Flash	169.95
FL-36R Flash	229.95
FL-50R Flash	499.95
RF-11 Ring Flash	249.95
SRF-11 Ring Flash Set	559.95
TF-22 Twin Flash	449.95
STF-22 Twin Flash Set	739.95

Zuiko 4/3 System Digital Lenses

8/3.5 Fish-eye ED	799.99
35/3.5 Macro ED (52ø)	229.95
50/2.0 Macro ED (77ø)	499.95
150/2.0 ED (82ø)	2,499.95
300/2.8 ED	6,999.95
7-14/4.0 ED (72ø)	1,799.95
11-22/2.8-3.5 ED (72ø)	799.95
12-60/2.8-4 ED SWD (72ø)	999.95
14-42/3.5-5.6 ED (58ø)	249.95
18-180/3.5-6.3 ED (62ø)	499.95
35-100/2.0 ED (77ø)	2,499.99
40-150/4-5.6 ED (58ø)	279.95
50-200/2.8-3.2 ED SWD (67ø)	1,199.95
90-250/2.8 ED (105ø)	5,999.95
EC-14 1.4x Teleconverter	439.95
EC-20 2x Teleconverter	479.95
MF-1 OM Lens Adapter	83.95

PENTAX

AF Flash System

AF-360FGZ	
AF-540FGZ	

SMCP-DA Digital AF Lenses

14/2.8 ED IF (77ø)	
15/4.0 ED AL (49ø)	
35/2.8 Mac. Limited (49ø)	
55/1.4 Limited (58ø)	
21/3.2 AL Limited "Pancake" (49ø)	
40/2.8 Limited "Pancake" (49ø)	
70/2.4 Limited "Pancake" (49ø)	
200/2.8 ED IF	
300/4.0 ED IF SDM (77ø)	
10-17/3.5-4.5 ED IF (77ø)	
12-24/4 ED AL IF (77ø)	
16-45/4 ED AL (67ø)	
16-50/2.8 ED AL IF SDM (77ø)	
17-70/4.0 AL IF SDM (67ø)	
18-55/3.5-5.6 AL II (52ø)	
50-135/2.8 ED IF SDM (67ø)	
50-200/4-5.6 ED WR (52ø)	
55-300/4-5.8 ED (58ø)	
60-250/4.0 ED IF SDM (67ø)	

AF Lenses for 35mm & Digital SLRs

31/1.8 Limited (58ø)	
50/1.4 (49ø)	
43/1.9 Limited "Pancake" (49ø)	
50/2.8 Macro (52ø) with Case	
77/1.8 Limited (49ø)	
100/2.8 D FA AW Macro (49ø)	

SONY

Compatible with Maxxum DSLRs

Flash System

HVL-F20AM	149.99
HVL-F20S	149.99
HVL-F43AM	349.99
HVL-F58AM	499.99

Digital Lenses

16/2.8 Fish-eye	999.99
20/2.8 (72ø)	749.99
24/2 Carl Zeiss (72ø)	1,399.99
35/1.4 G (55ø)	1,499.99
50/1.4 (55ø)	449.99
50/2.8 Macro (55ø)	599.99
85/1.4 Carl Zeiss (72ø)	1,699.99
100/2.8 Macro (55ø)	799.99
135/1.8 Carl Zeiss (77ø)	1,799.99
135/2.8 STF (72ø)	1,399.99
300/2.8 G APO	6,999.99
11-18/4.5-5.6 DT (77ø)	799.99
16-35/2.8 ZA SSM Carl Zeiss (77ø)	1,999.99
16-80/3.5-4.5 DT Carl Zeiss (62ø)	999.99
16-105/3.5-5.6 DT (62ø)	699.99
18-200/3.5-6.3 DT Aspherical (62ø)	549.99
18-250/3.5-6.3 DT (62ø)	649.99
24-70/2.8 Carl Zeiss (77ø)	1,999.99
70-200/2.8 G APO (77ø)	1,999.99
70-300/4.5-5.6 G (62ø)	999.99
75-300/4.5-5.6 (55ø)	249.99
1.4x Teleconverter	549.99
2x Teleconverter	549.99

OLYMPUS 50mm f/2 Macro ED Zuiko Digital Lens

- *Designed exclusively for Digital SLRs*
- Ideal for macro photography and also as a portrait lens
- Magnification 1:2
- ED glass element
- Min. focus: 9.45"
- 52mm filter diameter
- Weight: 10.6 oz

PENTAX 18-135mm f/3.5-5.6 ED AL (IF) DC WR Digital Lens

- *Designed exclusively for Digital SLRs*
- SP Coating Repels Dust, Water, & Grease
- Weather resistant
- Quick-Shift Focus System
- Min. focus: 1.3'
- 62mm filter diameter
- Weight: 14.3 oz

SONY HVL-F58AM Shoe-Mount Digital Flash

- Zoom Head (24-105mm)
- Bounce & Swivel Head
- Guide No. 190'
- TTL Dedication
- Vari-Power
- High-Speed Sync
- Auto WB Adjustment
- Wireless Ratio Control
- Weight: 15.6 oz

SONY 16-80mm f/3.5-4.5 Carl Zeiss T* DT Digital Lens

- *Designed exclusively for Digital SLRs*
- Ideal for snapshots, portraits, interiors, or outdoor scenery
- 35mm equiv: 24-120mm
- Min. focus: 13.8"
- 62mm filter diameter
- Weight: 15.5 oz

B&H PHOTO - VIDEO - PRO AUDIO
The Professional's Source™

Over 300,000 products, at your leisure
www.BandH.com

800-947-9980
212-444-6666
Fax:
212-239-7770

Upcoming Holiday Schedule
July 29..... Closed

We Buy, Sell and Trade Used Equipment

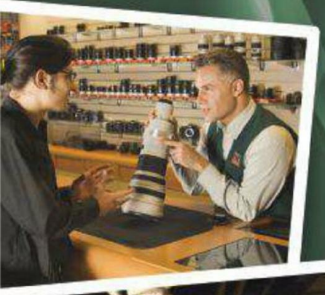
Store & Mail Order Hours:
Sunday 10-5 • Mon.-Thurs. 9-7
Friday 9-1 EST/9-2 DST
Saturday Closed

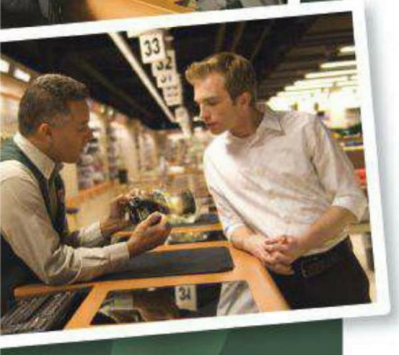
B&H PHOTO - VIDEO - PRO AUDIO

The Professional's Source™

When in New York, Visit our SuperStore

420 Ninth Ave.
Corner of 34th Street
New York, N.Y. 10001





- Over 70,000 square feet of the latest gear
- The most knowledgeable Sales Professionals
- Hands-on demos
- Convenient free parking available

Subscribe to our free Catalog
BandH.com/catalog
212-444-6633

Canon Digital Rebel T3 DSLR

- 2.7" Clear View LCD with Live View Function
- Uses Canon EF Lenses (1.6x factor)
- SDHC/SDXC Card Slot
- 3 fps Continuous Shooting
- ISO 100-6400
- Full HD Movie Mode
- RAW + JPEG Files
- Basic + Function / Creative Auto
- 63 Zone Dual-Layer System/9 Point AF

Expires 6-2-12

*Kit with 18-55mm IS..... #CAEDRT3K ..... **$50 Rebate!***

12 Mega Pixels

Canon Digital Rebel T3i DSLR

- 3" Clear View Vari-Angle LCD
- Uses Canon EF Lenses (1.6x factor)
- SDHC/SDXC Card Slot
- 3.7 fps Continuous Shooting
- ISO 100-6400
- RAW + JPEG Files
- Full HD Movie Mode with Manual Exposure
- 63 Zone Dual-Layer System/9 Point AF

Expires 6-2-12

Body Only..... #CAEDRT3I ..... —
*Kit with 18-55mm IS..... #CAEDRT3IK ..... **$50 Rebate!***

18 Mega Pixels

Canon EOS-60D DSLR

- 1920 x 1080 HD Video Capture
- DIGIC 4 Image Processor
- SD/SDHC/SDXC Card Slot
- Works with all Canon EF & EF-S Lenses • Vari-Angle Clear View 3.0" Flip-Out LCD
- HDMI Output to HDTV
- 5.3 fps Continuous Shooting
- ISO 6400 - Expandable to 12800

Expires 6-2-12

*Body Only..... #CAE60D ..... **$100 Rebate!***
*Kit with 18-135mm IS..... #CAE60D18135 ..... **$100 Rebate!***
*Kit with 18-200mm IS..... #CAE60D18200 ..... **$100 Rebate!***

18 Mega Pixels

Canon EOS-5D Mark III DSLR

- 3.2" Clear View High Resolution LCD
- DIGIC 5+ Image Processor
- 61-Point High Density AF
- Uses Canon EF Lenses
- Dual CF, SD Card Slots
- Extended ISO Range (50-102400)
- Durable Magnesium-Alloy Construction
- Full HD 1080/30p and 720/60p Formats
- Built-In HDR and Multiple Exposure Modes

*Body Only..... #CAE5D3**
Kit with 24-105mm L IS..... #CAE5D324105
EOS-5D Mark II *Body Only. #CAE5D2 ..... **In Stock***

22 Mega Pixels

Canon EOS-7D DSLR

- Record HD Video • 3" LCD
- Uses Canon EF Lenses
- CF, MD Card Slot
- Dust and Weather Resistant
- Selectable Video Exposure and Frame Rates
- ISO 100-6400 (expandable to 12800) • 8 fps Burst Mode
- 19-Point, All Cross-Type AF System

Expires 6-2-12

*Body Only..... #CAE7D ..... **$150 Rebate!***
*Kit with 18-135mm IS..... #CAE7D18135 ..... **$150 Rebate!***
*Kit with 28-135mm IS..... #CAE7D28135 ..... **$150 Rebate!***

18 Mega Pixels

Canon EOS-1Dx DSLR

- Dual DIGIC 5+ Image Processors
- Magnesium Alloy Body
- Eye-Level Pentaprism Viewfinder
- 3.2" LCD Monitor
- Uses Canon EF Lenses
- Dual CF card slots
- 1920 x 1080 HD Video Capture
- Live View Still and Video Recording
- 61-Point High Density Auto Focus

*Body Only..... #CAE1DX**

18 Mega Pixels

Canon SLR Lenses and Flashes

* Double Rebates up to $550

with purchase of lens or speedlight together with a qualifying DSLR camera body/kit.

- EOS-60D Body
- EOS-60D Kit with 18-135mm IS Lens
- EOS-60D Kit with 18-200mm IS Lens
- EOS-7D Body
- EOS-7D Kit with 18-135mm IS Lens
- EOS-7D Kit with 28-135mm IS Lens
- EOS-5D Mark II or III Body
- EOS-5D Mark II or III Kit with 24-105mm IS Lens

Expires 6-2-12

EOS Flash System (USA)

270EX		430EX II	*$20 Rebate**
270EX II	*$10 Rebate**	580EX II	*$30 Rebate**
320EX	*$25 Rebate**	600EX-RT	*$30 Rebate**
MR-14EX Ringlight	*$30 Rebate**		
MT-24EX Twin Flash	*$50 Rebate**		

EF-S Lenses for Digital Only (USA)

(Not compatible with full frame cameras)

60/2.8 USM Macro (52ø)	*$40 Rebate**
10-22/3.5-4.5 USM (77ø)	*$60 Rebate**
15-85/3.5-5.6 IS USM (72ø)	*$65 Rebate**
17-55/2.8 IS USM (67ø)	*$80 Rebate**
17-85/4-5.6 IS USM (67ø)	
18-55/3.5-5.6 IS (58ø)	
18-135/3.5-5.6 IS (67ø)	
18-200/3.5-5.6 IS (72ø)	
55-250/4.0-5.6 IS USM (58ø)	

EF Lenses (USA)

24/2.8 (58ø)		35/2 (52ø)	
28/2.8 (52ø)		50/1.8 II (52ø)	
28/1.8 USM (58ø)	*$40 Rebate**		
20/2.8 USM (72ø)	*$40 Rebate**		
50/2.5 Macro (52ø)	*$20 Rebate**		
50/1.4 USM (58ø)	*$30 Rebate**		
MP-E 65/2.8 1x-5x Macro (58ø)	*$70 Rebate**		
85/1.8 USM (58ø)	*$30 Rebate**		
100/2 USM (58ø)	*$35 Rebate**		
100/2.8 USM Macro (58ø)	*$40 Rebate**		

EF Lenses (USA)

135/2.8 (52ø)	
28-135/3.5-5.6 IS USM (72ø)	
70-300/4-5.6 IS USM (58ø)	
70-300/4.5-5.6 DO IS USM (58ø)	*$90 Rebate**
75-300/4.0-5.6 III (58ø)	
75-300/4.0-5.6 III USM (58ø)	

TS-E MF Lenses (USA)

17/4.0 "L"	*$170 Rebate**
24/3.5 "L" II	*$150 Rebate**
45/2.8	*$100 Rebate**
90/2.8	*$100 Rebate**

EF "L" Lenses (USA)

14/2.8 USM II	*$160 Rebate**
24/1.4 II (77ø)	*$120 Rebate**
35/1.4 USM (72ø)	*$100 Rebate**
50/1.2 USM (72ø)	*$120 Rebate**
85/1.2 USM II (72ø)	*$150 Rebate**
100/2.8 IS USM Macro (67ø)	*$70 Rebate**
135/2.0 USM (72ø)	*$75 Rebate**
180/3.5 USM Macro (72ø)	*$110 Rebate**
200/2.8 USM II (72ø)	
200/2.0 IS USM (52ø)	

EF "L" Lenses (USA)

300/4.0 IS USM (77ø)	*$90 Rebate**
300/2.8 IS USM II (52ø rear)	
400/5.6 USM (77ø)	
400/2.8 IS II (52ø rear)	
500/4 IS USM (52ø rear)	
600/4.0 IS (52ø rear)	
8-15/4.0 Fish-eye USM	*$100 Rebate**
16-35/2.8 USM II (82ø)	*$110 Rebate**
17-40/4.0 USM (77ø)	*$60 Rebate**
24-70/2.8 USM (77ø)	
24-105/4 IS USM (77ø)	
28-300/3.5-5.6 IS USM (77ø)	
70-200/4.0 USM (67ø)	
70-200/4.0 IS USM (77ø)	*$100 Rebate**
70-200/2.8 USM (77ø)	*$100 Rebate**
70-200/2.8 IS II USM (77ø)	*$200 Rebate**
70-300/4.0-5.6 IS USM (67ø)	*$100 Rebate**
100-400/4.5-5.6 IS USM (77ø)	*$110 Rebate**
1.4x II Teleconverter	
1.4x III Teleconverter	*$35 Rebate**
2x III Teleconverter	*$35 Rebate**

Canon 600 EX-RT Shoe-Mount Flash — $30 REBATE!*

- Dust and water resistance
- Guide No. 197'
- Wireless Radio Multiple Flash System
- Bounce and Swivel Head
- Zoom Head (20-200mm)
- 18 Custom Functions
- Weight: 15 oz

Canon 10-22mm f/3.5-4.5 EF-S USM Digital Lens — $60 REBATE!*

- *Designed exclusively for Digital SLRs*
- 35mm equivalent: 16-35mm
- Min. Focus: 9.5"
- 3 aspherical lens elements
- 3.5-27 f/Stop Range
- 77mm filter diameter
- Weight: 13.6 oz

Canon 24-70mm f/2.8 EF "L" USM Zoom Lens

- Sealed and gasketed against dust and moisture
- Internal Focusing
- UD Element
- Two Aspherical Elements
- 2.8-22 f/Stop Range
- Focus 1.25' to Infinity
- 77mm filter diameter
- Weight 33.6 oz

Canon 70-200mm f/2.8 EF "L" IS II USM Telephoto-Zoom Lens — $200 REBATE!*

- Improved Optical Image Stabilization provides up to 4 stops correction
- Min. Focus: 3.9'
- Dust & moisture resistant
- 77mm filter diameter
- Weight: 52.56 oz

Nikon 1 J1 Mirrorless Digital Camera

- EXPEED 3 Dual Image Processor
- Interchangeable 1 NIKKOR Lens System
- 3.0" Anti-Glare Color LCD
- SD/SDHC/SDXC Card Slot
- Full HD (1080p) Movie Record Mode
- Motion Snapshot 1-Touch Photo Animation
- 10 fps Continuous Shooting in AF Mode
- Available in Black, Red, Silver or White
- Nikon Inc. limited warranty included

** Available in Black only

Kit with 10-30mm VR#NI1J1*.....646.95*
Kit with 10mm & 10-30mm VR...#NI1J110.....896.95*
Kit with 10-30 & 30-110mm VR..#NI1J11030.....896.95*

10 Mega Pixels

Nikon D3200 DSLR

- EXPEED III Image Processor
- HD 1080p Video
- 3" LCD • Live View
- Uses Nikon AF Lenses (1.5x factor)
- SD/SDHC/SDXC Card Slot
- 11-point Autofocus
- Up To ISO 12800
- Nikon Inc. limited warranty included

D3200 Kit Black *w/18-55mm VR ...#NID32001855*.....**699.95**
D3200 Kit Red *w/18-55mm VR.....#NID32001855R*.....**699.95**
D3100 Kit *with 18-55mm VR.....#NID31001855*.....**646.95**

24 Mega Pixels

Nikon D5100 DSLR

- 1080p HD Movies with Full Time AF
- Uses Nikon AF Lenses (1.5x factor)
- 3.0" Vari-angle LCD
- SD/SDHC Card Slot
- ISO Sensitivity 100-6400
- In-Camera Special Effects Mode
- In-Camera HDR (High Dynamic Range)
- Fast 11-Point Autofocus System
- Nikon Inc. limited warranty included

Body Only.....#NID5100.....**746.95**
Kit with 18-55mm VR.....#NID51001855.....**846.95**

16 Mega Pixels

Nikon D7000 DSLR

- EXPEED 2 Image Processor
- 1080p HD Video Capture
- RAW + JPEG Still Image Capture
- Accepts Nikon AF Lenses (1.5x factor) • 3" LCD Monitor
- Twin SD/SDHC/SDXC Card Slots
- 39-point AF System
- RGB 3D Matrix Metering System
- i-TTL Flash + Speedlight Compatibility
- Nikon Inc. limited warranty included

Body Only.....#NID7000.....**1,199.95**

16 Mega Pixels

Nikon D800 DSLR

- 35.9x24mm CMOS FX Format Sensor
- 3.2" LCD Monitor
- Nikon F Mount Lens Mount
- CF & SD Dual Card Slots
- Optical Low-Pass Filter
- Eye-Level Pentaprism Viewfinder
- 1920 x 1080/30/25/24p HD Video Capture • Matrix/Center-Weighted/Spot Metering
- Built-In Flash + i-TTL Flash Control
- Nikon Inc. limited warranty included

Body Only.....#NID800.....**2,999.95**

36 Mega Pixels

Nikon D4 DSLR

- RAW, TIFF, JPEG, RAW+JPEG Files
- FX-format (full-frame) CMOS Sensor
- 1080p HD Broadcast Quality Video
- EXPEED3 Image Processor
- 3.2" LCD Screen with Live View
- Compatible with Most Nikkor Optics
- Matrix, Center-Weighted, Spot Metering • 100-12800 ISO
- CF Type 1 & XQD Compatible
- Nikon Inc. limited warranty included

Body Only.....#NID4.....**5,999.95**

16 Mega Pixels

Nikon SLR Lenses and Flashes

Call for Available Rebates & Promotions on Select Bodies, Lenses and Flashes!

AF Flashes

SB-400
SB-700 ..... **326.95**
SB-900
SB-910 ..... **546.95**
R1 Wireless Twin Flash
R1C1 Wireless Twin Flash System

DX ED-IF Lenses for Digital Only

10.5/2.8 Fish-Eye
28/1.8 G AF-S (67ø) **699.95**
35/1.8 G AF-S (52ø) **196.95**
40/2.8 G AF-S Micro (52ø) **276.95**
85/3.5 G ED VR Micro (52ø)
10-24/3.5-4.5 G AF-S (77ø)
12-24/4 G AF-S (77ø)
16-85/3.5-5.6 G AF-S VR (67ø)
17-55/2.8 G AF-S (77ø)
18-55/3.5-5.6 G AF-S II (52ø)
18-55/3.5-5.6 G AF-S VR (52ø) **196.95**
18-105/3.5-5.6 G AF-S VR (67ø) **396.95**
18-200/3.5-5.6 G AF-S VR II (72ø) **846.95**
55-200/4-5.6 G AF-S (52ø)
55-200/4-5.6 G AF-S VR (52ø) **246.95**
55-300/4.5-5.6 G AF-S VR (58ø) **396.95**

D-Type AF Lenses

14/2.8 D ED
16/2.8 D (39ø) with Hood
20/2.8 D (62ø)
24/2.8 D (52ø)
24/1.4 G AF-S ED (77ø)
24/3.5 D ED PC-E (77ø)
28/2.8 D (52ø)
35/2.0 D (52ø)
35/1.4 G AF-S ED (67ø)
45/2.8 D ED PC-E Micro (77ø)
50/1.8 D (52ø)
50/1.8 G AF-S (58ø) **216.95**
50/1.4 D (52ø)
50/1.4 G AF-S (58ø)
60/2.8 D Micro (62ø) (1:1)
60/2.8 G AF-S ED Micro (62ø)
85/1.8 D (62ø) with Hood
85/1.4 D IF (77ø)
85/1.4 G AF-S (77ø)
85/1.8 G AF-S (67ø) **499.95**
85/2.8 PC-E Micro (77ø)
105/2.8 G AF-S ED-IF VR Micro (62ø)
105/2.0 DC D with Hood (72ø)
180/2.8 D ED-IF (72ø)

D-Type AF Lenses

200/4 D ED-IF Micro w/Case (62ø)
200/2 G AF-S ED-IF VR (52ø)
300/4.0 D AF-S ED-IF (77ø)
300/2.8 G AF-S VR (52ø-R)
400/2.8 G AF-S VR ED (52ø)
500/4.0 G AF-S VR ED (52ø)
600/4.0 G AF-S VR ED (52ø)
14-24/2.8 G AF-S ED-IF **1,996.95**
16-35/4.0 G AF-S ED VR (77ø)
17-35/2.8 D AF-S ED-IF (77ø)
24-70/2.8 G AF-S ED-IF (77ø) **1,886.95**
24-85/2.8-4.0 D IF (72ø)
24-120/4.0 G AF-S ED VR (77ø) **1,296.95**
28-300/3.5-5.6 G AF-S ED VR (77ø)
70-200/2.8 G AF-S ED-IF VR II (77ø) **2,396.95**
70-300/4.0-5.6 G (62ø)
70-300/4.5-5.6 G-AFS VR (67ø) **586.95**
80-200/2.8 D with Collar (77ø)
80-400/4.5-5.6 D VR (77ø)
200-400/4 G AF-S ED VR II (52ø)
TC-14E II (1.4x) Teleconverter
TC-17E II (1.7x) Teleconverter
TC-20E III (2x) Teleconverter

Nikon
24-70mm f/2.8 G AF-S ED-IF Zoom Lens

- Optimized for edge-to-edge sharpness on both the Nikon FX (full-frame) and DX-format image sensors
- Rugged construction, dust and moisture resistance
- Minimum focus 1.2'
- 77mm filter diameter
- Weight 32 oz

Nikon
18-200/3.5-5.6 DX G VR II AF-S ED-IF Digital Lens

- *Designed exclusively for Digital SLRs*
- 35mm equiv. 27-300mm
- **VR II** Vibration Reduction
- SWM (Silent Wave Motor)
- 3.5-22 f/Stop Range
- Focus 1.6' to Infinity
- 72mm filter diameter
- Weight 19.8 oz

Nikon
70-200/2.8 G AF-S ED-IF VR II Telephoto-Zoom Lens

- **VR II** Vibration Reduction
- 3.5-22 f/Stop Range
- SWM (Silent Wave Motor)
- Close Focusing to 4.6'
- 77mm filter diameter
- Weight 3.2 lbs

Nikon
SB-910 Speedlight i-TTL Shoe Mount Flash

- Tungsten & Fluorescent Filters Included
- Guide No. 111.5'
- Simplified Graphic User Interface (GUI)
- Bounce & Swivel Head
- Zoom Head (17-200mm)
- Wireless Controller
- Weight 14.8 oz

B&H PHOTO - VIDEO - PRO AUDIO
The Professional's Source™

Over 300,000 products, at your leisure
www.BandH.com

800-947-9980
212-444-6666
Fax:
212-239-7770

Upcoming Holiday Schedule
July 29..... Closed

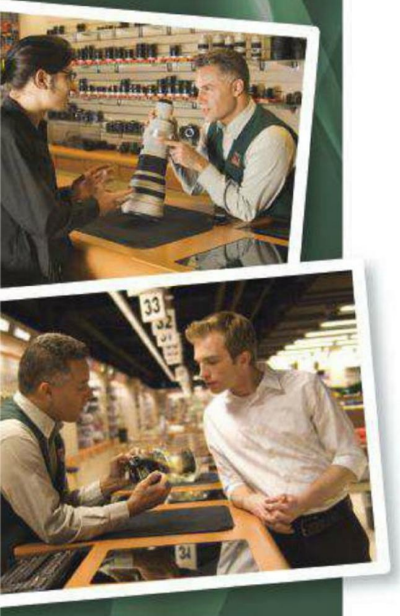
We Buy, Sell and Trade Used Equipment

Store & Mail Order Hours:
Sunday 10-5 • Mon.-Thurs. 9-7
Friday 9-1 EST/9-2 DST
Saturday Closed

B&H
PHOTO - VIDEO - PRO AUDIO
The Professional's Source™

When in New York,
Visit our SuperStore

420 Ninth Ave.
Corner of 34th Street
New York, N.Y. 10001



- Over 70,000 square feet of the latest gear
- The most knowledgeable Sales Professionals
- Hands-on demos
- Convenient free parking available

Subscribe to our free Catalog
BandH.com/catalog
212-444-6633

TAMRON AF LENSES

Six-Year Warranty | **Manual Focus Lenses In Stock – Call for Prices**

Di for both digital and film SLR cameras • **Di-II** for Digital SLRs Only • **Di III** for mirror-less cameras Only

C = Canon N = Nikon P = Pentax SM = Sony/Minolta SE = Sony E Mount *** Price After Rebate Exp. 6-30-12*

		SKU #	Available for	Rebate	Price
Di-II	60/2.0 LD IF Macro (55ø)	#TA602DI*	C, N, SM	$100	424.00**
Di	90/2.8 Macro (55ø)	#TA9028M*	C, N, P, SM	$50	449.00**
Di	180/3.5 LD IF Macro (72ø)	#TA18035*	C, N, SM	$50	689.00**
Di-II	10-24/3.5-4.5 (77ø)	#TA102435*	C, N, P, SM	$50	449.00**
Di-II	17-50/2.8 XR LD IF Aspherical (67ø)	#TA175028*	C, N, P, SM	$25	474.00**
Di-II	17-50/2.8 XR VC LD IF Asph. (67ø)	#TA175028*Q	C, N	$50	599.00**
Di-II	18-200/3.5-6.3 (62ø)	#TA1820035*	C, N, P, SM	$50	249.00**
Di-III	18-200/3.5-6.3 VC (62ø) Black or Silver	#TA1820035S*	SE	—	739.00
Di-II	18-270/3.5-6.3 VC (72ø)	#TA1827035*	N	—	CALL
Di-II	18-270/3.5-6.3 VC PZD (62ø)	#TA18270*	C, N, SM	$100	549.00**
Di	24-70/2.8 VC USD (82ø)	#TA247028*	C, N, SM	—	1,299.00
Di	28-75/2.8 XR (67ø)	#TA287528*	C, N, P, SM	$25	474.00**
Di	28-300/3.5-6.3 XR LD (62ø)	#TA2830035XD*	C, P, SM	—	419.00
Di	28-300/3.5-6.3 XR VC (62ø)	#TA2830035*	C, N	—	629.00
Di	70-200/2.8 LD IF Macro (77ø)	#TA7020028M*	C, N, P, SM	—	769.00
Di	70-300/4.0-5.6 VC USD (62ø)	#TA70300*	C, N, SM	$100	349.00**
Di	75-300/4.0-5.6 LD (62ø)	#TA753004*	C, N, SM	—	164.00
Di	200-500/5-6.3 LD IF (86Cø)	#TA2005005*	C, N, SM	—	949.00
	1.4x SP AF Pro Teleconverter	#TA14XP*	C, N	—	224.00
	2x SP AF Pro Teleconverter	#TA2XP*	C, N	—	254.00

Tokina AF LENSES

DX – for Digital SLRs Only **FX** – Designed for full frame DSLRs *** Price After Rebate Exp. 6-30-12*

** Also Available for Sony Alpha DSLR

		Canon EOS	Nikon AF	Rebate	Price
DX	35/2.8 Pro Macro (55ø)	#TO3528PDXC	#TO3528PDXN	—	299.00
FX	100/2.8 Pro D Macro (52ø)	#TO10028PCAF	#TO10028PNAF	—	489.00
DX	10-17/3.5-4.5 ATX Fisheye	#TO101735CAF	#TO101735NAF	—	669.00
DX	11-16/2.8 Pro (77ø) **	#TO111628PDXC	#TO111628PDXN	$40	659.00**
DX	12-24/4.0 Pro II (77ø)	#TO12244DXC	#TO12244DXN	—	599.00
FX	16-28/2.8 Pro	#TO1628FXC	#TO1628FXN	$50	799.00**
FX	17-35/4 Pro (82ø)	#TO1735F4FXC	#TO1735F4FXN	$40	659.00**

FLASHES

Metz

28 CS-2 Digital Slave Shoe Mount Flash	139.99
50 AF-1 TTL Shoe Mount Flash f/Canon or Nikon	249.99
54 MZ-4 TTL Digital Shoe Mount Flash	406.00
58 AF-2 TTL Shoe Mount Flash f/Canon or Nikon	399.99
45 CL-4 TTL Digital Handle Mount Flash	519.99
45 CL-4 TTL Digital Handle Mount Flash Kit	699.99
76 MZ-5 TTL Digital Handle Mount Flash	1,039.99

Quantum

Q-flash TRIO	875.00
Q-flash T5D-R	706.00
Q-flash T5D-R with Turbo SC Battery & Charger	1,172.00
Q-flash T5D-R with Turbo 3 Battery Kit	1,303.50

Batteries

Battery 1 Compact	118.00		
Battery 1	224.00	Turbo Blade	466.00
Turbo SC	466.00	Turbo 3	624.00

SUNPAK

E-Flash Flat Panel Kit #SUFP38	58.95
PF20XD Digital Slave Shoe Mount Flash	44.95
RD-2000 Shoe Mount Flash	64.95
DF3000 Digital for Canon, Nikon, Sony	79.95
PZ-4000 AF TTL Shoe Mount f/Canon, Nikon	74.95
PZ-40x II AF TTL Shoe Mount f/Nikon (Silver)	69.95
PZ-42x AF TTL Shoe Mount for Canon, Nikon	145.95
622 Super Pro TTL Handle Mount Flash	196.95
622 Super Kit with Wide Angle Head	199.95

Vivitar

285HV Professional Auto	89.95
Pearstone SB-4 AC Adapter for 285HV #PESB4	14.95

SIGMA AF LENSES & FLASHES

New! Instant Rebates up to $200 Expires 5-31-12 *** Price After Rebate*

DC – for Digital SLRs Only • **DG** – Optimized for Digital SLRs

H – HSM Model with Canon, Nikon, Sigma
R – Rear Slip-in Gelatin Filter Slot

		Canon	Nikon	Pentax	Sigma	Sony	Rebate	Price
DC	4.5mm f/2.8 EX Circular Fisheye HSM R	#SI4528EXDCC	#SI4528EXDCN	#SI4528EXDCP	#SI4528EXDCSI	#SI4528EXDSO	—	899.00
DG	8/3.5 EX Circular Fisheye R	#SI835CA	#SI835NA	—	#SI835SI	—	—	899.00
DC	10mm f/2.8 EX Fisheye HSM R	#SI1028EXDCC	#SI1028EXDCN	#SI1028EXDCP	#SI1028EXDCSI	#SI1028EXDCSO	—	649.00
DG	15/2.8 EX Diagonal Fisheye R	#SI1528DGCAF	#SI1528DGNAF	#SI1528DGPAF	#SI1528DGSA	#SI1528DGMAF	—	609.00
DG	20/1.8 EX DF RF Aspherical (82ø)	#SI2018CAF	#SI2018NAF	#SI2018PAF	#SI2018SA	#SI2018MAF	—	629.00
DG	24/1.8 EX DF Aspherical Macro (77ø)	#SI2418MCAF	#SI2418MNAF	#SI2418MPAF	#SI2418MSA	#SI2418MMAF	—	549.00
DG	28/1.8 EX DF Aspherical Macro (77ø)	#SI2818MCAF	#SI2818MNAF	#SI2818MPAF	#SI2818MSA	#SI2818MMAF	—	449.00
DC	30mm f/1.4 EX HSM (62ø)	#SI3014DCCAF	#SI3014DCNAF	#SI3014DCPAF	#SI3014DCSA	#SI3014DCMAF	—	489.00
DG	50mm f/1.4 EX (77ø) H	#SI5014C	#SI5014N	#SI5014PE	#SI5014SI	#SI5014SOM	—	499.00
DG	50/2.8 EX Macro (55ø)	#SI5028MDGCAF	#SI5028MDGNAF	#SI5028MDGPAF	#SI5028MDGSA	#SI5028MDGMAF	—	369.00
DG	70/2.8 EX Macro (62ø)	#SI7028MDGCA	#SI7028MDGNA	#SI7028MDGPA	#SI7028MDGSA	#SI7028MDGSAQ	—	499.00
DG	85/1.4 EX HSM (77ø)	#SI8514C	#SI8514N	#SI8514P	#SI8514SI	#SI8514S	—	969.00
DG	105/2.8 EX Macro OS HSM (62ø)	#SI10528MDGCE	#SI10528MDGNQ	—	#SI10528MDGS	#SI10528MDGSM	$200	769.00**
DG	150/2.8 EX APO Macro OS HSM (72ø)	#SI15028AMOC	#SI15028AMON	#SI15028AMOP	#SI15028AMSI	#SI15028AMOS	—	1,099.00
DG	300/2.8 APO EX HSM	#SI30028DGCAF	#SI30028DGNAF	#SI30028DGPAF	#SI30028DGSA	#SI30028DGMAF	—	3,399.00
DG	500/4.5 APO EX HSM	#SI50045DGCAF	#SI50045DGNAF	#SI50045DGPAF	#SI50045DGSA	#SI50045DGMAF	—	4,999.00
DC	8-16/4.5-5.6 HSM	#SI8164556CA	#SI8164556NI	#SI8164556PE	#SI8164556SI	#SI8164556SO	—	699.00
DC	10-20/4-5.6 EX HSM (77ø)	#SI102045DCAF	#SI102045DNAF	#SI102045DPAF	#SI102045DSA	#SI102045DMAF	—	479.00
DC	10-20/3.5 EX HSM (82ø)	#SI102035C	#SI102035SN	#SI102035P	#SI102035SG	#SI102035S	—	649.00
DG	12-24/4.5-5.6 EX Aspherical HSM	#SI122445C	#SI122445N	#SI122445P	#SI122445SI	#SI122445S	—	949.00
DC	17-50/2.8 EX OS HSM (77ø)	#SI175028CA	#SI175028NI	#SI175028PE	#SI175028SI	#SI175028SO	—	669.00
DC	17-70/2.8-4.0 OS Macro HSM (72ø)	#SI177028DCC	#SI177028DCNQ	#SI177028DCP	#SI177028DCSI	#SI177028DCSM	—	469.00
DC	18-50/2.8-4.5 OS HSM (67ø)	#SI185028DOC	#SI185028DON	#SI185028DOP	#SI185028DOSG	#SI185028DOS	—	199.00
DC	18-125/3.8-5.6 OS (Optical Stabilizer) (67ø) H	#SI18125350SC	#SI18125350SN	#SI18125350SP	#SI18125350SI	#SI18125350SS	—	339.00
DC	18-200/3.5-6.3 OS II HSM (72ø)	#SI1820035CQ	#SI1820035NQ	—	#SI1820035SAQ	#SI1820035SQ	$100	399.00**
DC	18-250/3.5-6.3 OS HSM (72ø)	#SI1825035C	#SI1825035N	#SI1825035CP	#SI1825035S	#SI1825035CSN	—	479.00
DG	24-70/2.8 EX IF HSM (82ø)	#SI247028C	#SI247028NF	#SI247028PS	#SI247028S	#SI247028SM	$75	824.00**
DC	50-150/2.8 EX APO OS HSM (77ø)	#SI5015028CA	#SI5015028NA	—	#SI5015028SAF	—	—	1,099.00
DC	50-200/4-5.6 OS HSM (55ø)	#SI5020045DOC	#SI5020045DON	#SI5020045DOP	#SI5020045DSG	#SI5020045DOS	—	159.00
DG	50-500/4.5-6.3 APO OS HSM (95ø)	#SI505004563C	#SI505004563N	#SI505004563P	#SI505004563SA	#SI505004563SM	—	1,659.00
DG	70-200/2.8 EX APO OS HSM (77ø)	#SI7020028CQ	#SI7020028NI	#SI7020028P	SI7020028SIQ	#SI7020028SOQ	$100	1,299.00**
DG	70-300/4-5.6 DL Macro Super II (58ø)	#SI703004SCAF	#SI70300456N	#SI703004PAF	#SI703004SA	#SI703004MAF	—	169.00
DG	70-300/4-5.6 APO Macro Super II (58ø)	#SI703004DGCA	#SI70300456AN	#SI703004DGPA	#SI703004DGSA	#SI703004DGMA	—	239.00
DG	70-300/4-5.6 OS (62ø)	#SI7030045C	#SI7030045N	#SI7030045P	#SI7030045S	#SI7030045SM	—	359.00
DG	120-300/2.8 EX APO OS HSM (105ø)	#SI12030028C	#SI12030028N	#SI12030028P	#SSI12030028SA	#SI12030028S	—	3,199.00
DG	120-400/4.5-5.6 APO OS HSM (77ø Rear)	#SI120400C	#SI120400N	#SI120400PAF	#SI120400S	—	—	999.00
DG	150-500/5-6.3 APO OS HSM	#SI150500C	#SI150500N	#SI150500P	#SI150500S	#SI150500M	—	1,069.00
DG	1.4x EX APO Tele-Converter	#SI1.4XDGCAF	#SI1.4XDGNAF	#SI1.4XDGPAF	#SI1.4XDGSA	#SI1.4XDGMAF	—	249.00
DG	2x EX APO Tele-Converter	#SI2XDGCAF	#SI2XDGNAF	#SI2XDGPAF	#SI2XDGSA	#SI2XDGMAF	—	299.00
DG	EF-610 ST	#SIEF610STC	#SIEF610STN	#SIEF610STP	#SIEF610STSI	#SIEF610STS	—	165.00
DG	EF-610 Super Flash	#SIEF610C	#SIEF610N	#SIEF610P	#SIEF610SI	#SIEF610S	—	255.00
DG	EM-140 TTL Ringlight	#SIEM140DGC	#SIEM140DGN	#SIEM140DGP	#SIEM140DGS	#SIEM140DGM	—	379.00

SIGMA
18-200mm f/3.5-6.3 DC II OS HSM Digital Lens
- *Designed exclusively for Digital SLRs*
- Focus 1.5' to Infinity
- Mag. ratio: 1:3.8
- 72mm filter diameter
- Weight: 17.3 oz

SIGMA
70-200mm f/2.8 EX APO OS HSM DG Lens
- *Desirable for Digital SLRs*
- Minimum focus: 4.59'
- 34-12.3° angle of view
- 77mm filter diameter
- Tripod collar
- Weight: 50.4 oz

TAMRON
60mm f/2.0 LD IF Macro Di-II Digital Lens
- *Designed exclusively for Digital SLRs*
- Minimum Focus 9.1'
- 55mm filter diameter
- Weight 14.1 oz

Tokina
11-16mm f/2.8 Pro DX AT-X Fisheye Digital Lens
- *Designed exclusively for Digital SLRs*
- WR (Water Repellent) coating
- Minimum Focus 1'
- Magnification ratio 1:11.6
- Weight 1.2 lb

VELLO™

FreeWave Wireless Remote

- 16 Million Possible Channels
- Operates on Radio Frequencies
- Direct Line of Sight Not Required
- Operating Range up to 320'
- Transmitter Can Fire Multiple Receivers
- Wireless Autofocusing and Triggering

for Canon with 3-Pin Connection #VERWC2	$37.95
for Canon, Pentax, Samsung, Contax #VERWC1	$35.95
for Nikon with 10-Pin Connection #VERWN1	$35.90
for Nikon with Mini-USB Connection #VERWN2	$35.49
for Canon & Panasonic #VERWC2PK	$42.95
for Nikon & Olympus #VERWO2K	$36.95
for Nikon D90, D3100, 5000, 7000 #VERWN2K	$43.40
for Sony Alpha #VERWS1	$39.95

PHOTOGRAPHY ACCESSORIES

impact™

lighting equipment and accessories

LiteTrek 4.0 (LT) Series

Whether it's fashion, wedding or portrait photography, the best way to achieve professional-looking results in the field is by adding flash to the ambient light. The Impact Mini LiteTrek Battery Pack provides DC juice to your Impact LiteTrek 4.0 portable flash or select Nikon & Canon flashes with optional power cords as well as Quantum flashes without adaptation.

LiteTrek 4.0 DC Monolight
Flash Head #IMLTFH..~~$499.95~~

Up to $45000 Instant Savings on LiteTrek 4.0 (Expires 6-30-12)

LiteTrek 4.0 DC Monolight Kits with Mini LiteTrek Battery Pack

1-Light Kit #IMMLTBK	~~$799.95~~	*Instant Rebate -$200*	**$599.95**
2-Light Kit #IMMLTBK2	~~$1,099.90~~	*Instant Rebate -$250*	**$849.90**

Mini LiteTrek (LT) Battery #IMMLTB **$199.95**
Mini LiteTrek (LT) Battery Pack #IMMLTPBP **$399.95**
Mini LiteTrek (LT) Pack & Charger Kit with CKE Nikon Cable #IMMLTPBPK1 ... **$439.95**
Mini LiteTrek (LT) Pack & Charger Kit with CZ Canon Cable #IMMLTPBPK2 ... **$439.95**

LiteTrek Accessories

Charger for Mini LiteTrek #IMCBP... **$49.95**
IM-CKE Nikon Flash Cable #IMCKE **$42.95**
IM-CZ Canon Flash Cable #IMCZ.... **$42.95**
LiteTrek 4.0 Flash Tube #IMFTFH.... **$79.95**
Reflector Adapter (Bowens Adapter) #IMBAFH **$24.95**

B&H

PHOTO - VIDEO - PRO AUDIO

The Professional's Source™

Over 300,000 products, at your leisure

www.BandH.com

800-947-9980
212-444-6666

Fax:
212-239-7770

Upcoming Holiday Schedule

July 29..... Closed

We Buy, Sell and Trade **Used Equipment**

Store & Mail Order Hours:
Sunday 10-5 • Mon.-Thurs. 9-7
Friday 9-1 EST/9-2 DST
Saturday Closed

FILTERS

SINGH-RAY Filters in stock

HOYA

B&H SPECIAL! Buy 3 or more Hoya Filters & Get 10% Off.

	52mm	58mm	67mm	72mm	77mm
UV, Skylight (1B)	13.35	19.95	32.85	34.35	49.35
UV, Skylight (1B) HMC	20.85	23.85	35.85	43.35	52.35
UV, Skylight (1B) Super HMC	35.85	44.85	55.35	65.85	74.85
Linear Polarizer	32.85	35.85	38.85	44.85	55.35
Circular Polarizer	38.85	43.35	62.85	74.85	88.35
Circular Polarizer HMC	77.85	88.35	103.35	146.85	179.85
"Moose" Warm Circular Polarizer	55.35	64.35	92.85	115.35	137.85
K2 Yel, X0 Yel/Grn, Grn X1, Or G, Red 25A HMC	25.35	28.35	41.85	49.35	61.35
Close Up Set (+1, +2, +4)	50.85	64.35	77.85	95.85	104.85
Close-Up Set HMC (+1, +2, +4)	65.85	74.85	98.85	—	—
Intensifier – Blue, Green Field, Enhancement (Red)	44.85	55.35	70.35	86.85	104.85
Neutral Density 2x, 4x, 8x HMC	25.35	28.35	41.85	49.35	61.35
Star 6, Star 8	25.35	28.35	43.25	49.35	58.35

heliopan

Made exclusively with glass from Schott (Zeiss) the world's finest optical glass supplier.

	55mm	58mm	67mm	72mm	77mm
Skylight (1B), UV	39.99	41.99	62.99	77.99	89.99
Skylight (1B), UV SH-PMC	72.99	78.99	103.99	131.99	157.99
Circular Polarizer, Slim Circular Polarizer	115.99	121.99	151.99	180.99	195.99
Circular Polarizer SH-PMC, Slim Circ. Pol. SH-PMC	161.99	171.99	214.99	242.99	275.99
#5, #8, #11, #13, #15, #22, 81A, 81B, 81C	49.99	51.99	78.99	96.99	108.99
Digital Filter	176.99	180.99	222.99	261.99	301.99

B+W

B&H SPECIAL! Buy 3 or more B+W Filters & Get 5% Off.

	55mm	58mm	67mm	72mm	77mm
UV	21.00	23.00	33.50	42.00	47.50
UV Multi-Coated	38.50	38.50	52.00	64.50	88.00
Circular Polarizer	63.00	65.00	81.50	93.50	105.00
Circular Polarizer Multi-Coated	90.00	93.50	117.00	134.50	160.50
81A, B, KR3, 6, 12, 15	26.50	26.50	36.00	42.00	49.00
KB1.5, 3, 6, 12, 15, 20	28.50	28.50	35.00	40.50	47.50
#021, 023, 041, 060, 061, 090	24.50	24.50	36.00	42.00	49.00
Graduated (N.D. & Colors)	46.50	47.50	58.50	68.00	82.50
ND .9, 1.8, 3.0, 4.0, 6.0	42.00	42.00	67.50	84.00	94.50
Close-Up Lenses 0.25 – 5.0	24.50	24.50	36.00	42.00	49.00

TIFFEN

Ten -Year Warranty Made in USA — Multicoated Filter Technology

Digital Essentials Kits In Stock — ***DIGITAL HT FILTERS***

	52mm	58mm	62mm	72mm	77mm
812 Warming	64.95	74.95	99.95	109.95	129.95
Grad ND 0.6	74.95	84.95	109.95	119.95	139.95
Circular Polarizer	109.95	129.95	159.95	199.95	219.95
Ultra Clear	49.95	59.95	69.95	74.95	79.95
Haze 86	54.95	64.95	74.95	84.95	99.95
ND 1.2	64.95	74.95	99.95	109.95	129.95
ND 0.6	64.95	74.95	99.95	109.95	129.95
Soft FX3	74.95	84.95	109.95	119.95	139.95
Star 4 pt 2	64.95	74.95	99.95	109.95	129.95

FILM – B&W AND COLOR

COLOR PRINT

FUJIFILM

Superia
CA 200 135-24.....**1.99**
CH 400 135-24.....**1.99**
CZ 800 135-24.....**3.95**

Pro
400H 135-36.....**6.49**
400H 120 Roll.....**4.99**

Kodak

Gold
GA 100 135-24.....**1.99**

Gold Max
GC 400 135-24.....**1.99**
GC 400 135-36.....**2.85**

Ektar
100 135-36.....**5.50**
100 120 Roll.....**3.99**

Portra
160 135-36.....**5.99**
160 120 Roll.....**4.79**
160 220 Roll.....**10.99**
160 220 PP (5).....**54.95**
400 135-36.....**6.70**
400 120 Roll.....**4.99**
400 220 Roll.....**11.70**
400 220 PP (5).....**58.50**
800 135-36.....**9.95**
800 120 Roll.....**6.99**

COLOR SLIDE

FUJIFILM

Fujichrome Professional Tungsten 64T
RTP II 135-36.....**11.59**

Velvia RVP
Pro 50 135-36.....**6.95**
Pro 50 120 Roll.....**5.99**
100 135-36.....**6.99**
100 120 Roll.....**5.39**
100F 135-36.....**6.99**
100F 120 Roll.....**4.59**

Provia
RDP 100F 135-36.....**6.49**
RDP 100F 120 Roll.....**3.79**
RXP III 400X 135-36.....**10.99**
RXP III 400X 120 Roll.....**6.99**

Kodak

Ektachrome Professional E Series
100 VS 135-36.....**10.29**
100 G 135-36.....**10.29**

PROCESSING MAILERS

B&W 35mm.....**16.75**
B&W 120 Roll.....**16.75**

Print C41 35mm.....**13.49**
Print C41 120 Roll...**15.49**
Print C41 220 Roll...**30.95**

FUJIFILM

SLIDE
36 Exp. (35mm).....**8.49**

BLACK & WHITE PRINT

FUJIFILM

Acros 100 135-36.....**4.75**
Acros 100 120 Roll....**3.20**
Neopan 400 135-36..**4.50**

ILFORD

Pan F+ 50 135-36.....**5.49**
Pan F+ 50 120 Roll....**4.49**
FP4+ 125 135-36.....**5.99**
FP4+ 125 120 Roll....**4.25**
HP5+ 400 135-36.....**4.78**
HP5+ 400 120 Roll....**3.89**

Delta Pro
100 135-36.....**5.69**
100 120 Roll.....**4.19**
400 135-36.....**5.95**
400 120 Roll.....**4.49**
3200 135-36.....**7.59**
3200 120 Roll.....**5.29**

XP-2 Super
400 135-36.....**6.09**
400 120 Roll.....**4.49**

Infrared
SFX 3200 135-36.....**7.19**
SFX 3200 120 Roll.....**7.50**

Kodak

Tri-X 400 135-36.....**4.50**
Tri-X 400 120 Roll.....**3.99**
TMX 100 135-36.....**6.50**
TMX 100 120 Roll.....**4.50**
TMY 400 135-36.....**6.95**
TMY 400 120 Roll.....**4.59**
TMZ 3200 135-36.....**8.95**
BW 400CN 135-36....**6.95**

TECH INNOVATIONS

Imagine. Design. Create.

The Zing 16 from Epilog lets you easily etch photos in a variety of materials. From wood to marble to acrylic, you can engrave wedding, graduation and vacation photos on all types of materials. Starting at $7,995 USD.

www.epiloglaser.com

PhotoBook Press

A Better Book for Your Images

Preserve your finest images in a beautifully printed and constructed book. Printed on 120# paper, signature sewn bindings that lay flat. Leather, fabric or graphic covers, foil stamps, dust jackets, custom end papers.

Fine Custom Photo Books
Starting at $159.00
www.photobookpress.com

Breo iPalm520

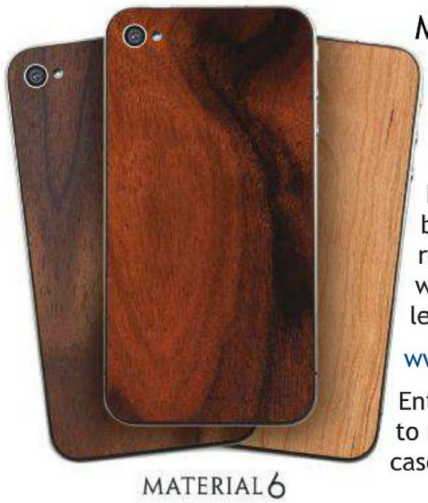
The 1st Hand Massager of its Kind. Comfort is within your reach. Enjoy relief and relaxation - anytime, anywhere. This portable massager kneads and presses acupuncture points, loosening tensed muscles and relaxing your hands. Experience the gentle power of air pressure and hot compress massaging technology. IPalm520 is innovation at its best.

(limited time only)
IPalm520 MSRP ~~$168~~
Sale Price $119
www.breo-usa.com or
855-273-6872

Wispr

The WISPR by Iolite is the first premium herbal vaporizer that's as beautiful to look at as it is easy to use. It's at home with every other high-end design object in your life, and it works like a dream. Simply load it with the tobacco of your choice, switch it on, wait a moment, and inhale a smoke-free (ergo less toxic) vapor through its super-sleek mouthpiece.

Wisper $269
www.iolite.com or 888-425-8042



Material6

Looking to add texture and warmth to the back of your iPhone 4 or 4S? Material6 offers handmade wood inlay backs in nine finishes - replace breakable glass with sustainable wood in less than a minute.

www.material6.com

Enter promotional code **POP** to receive a free bumper case with your order!

Economical USB 2Mpixel Microscope Zooms In!

Small, easy-to-use, plug'n'play USB digital microscope/magnifier for detail inspection, hobbies, projects, biology samples, school reports, etc. Snapshots, video recording, time-lapse video, measurement. 5x to 200x magnification at 0 - 300mm. PC software gives accurate measurements for reports, analysis, etc. Polarizing filter option removes glare from shiny objects.

$59.95
www.saelig.com

CONTINUED FROM PAGE 76

of the camera, like many of the buttons on the 5D Mark III, can be assigned one of numerous functions should you want to customize the camera controls.

Betraying its age, the 5D Mark II had only one memory-card slot (for CompactFlash), while the Mark III has both a CF and an SD card slot. These can be configured to mirror one another, or to fill up in sequence, or to split different kinds of files between them—you can record RAW to one and JPEG to another, for instance.

Video capture yields gorgeous-looking footage. Although Nikon actually gains an edge here (thanks to the uncompressed video output from the D4 and D800), unless you're shooting a high-level professional-grade project, the video clips you get from this Canon will be all you'll need. Heck, given how much the Mark II has been used professionally by photojournalists and Hollywood shooters alike, we'd guess that pros will cozy up to the Mark III's video as well.

Simply offering a burst speed of 6 fps on a full-framer really changes the game for Canon in this class of camera. Combine this with the Mark III's autofocus tracking functions, and many Mark II shooters will notice a big improvement. While the earlier model was iffy for shooting sports, the Mark III holds its own.

In our field tests, AF tracking performed flawlessly. You can select from six different "Cases" of tracking: You can let the camera know to ignore obstacles that temporarily obstruct your subject, or that the subject will enter the frame from a certain direction, or whether the subject is likely to move erratically or to change speed.

Thanks to a submenu given over to customizing the camera's buttons, complete with illustrations identifying them, the 5D Mark III can be made over to appeal to any kind of shooter.

Moreover, you can adjust tracking sensitivity, acceleration, and AF point-switching sensitivity independentally for each Case. Indeed, the Mark III provides so many autofocus options that a whole section of its menu system, with five screens of settings, is dedicated to AF.

Unfortunately, the contrast AF used in the live view and video shooting modes is still quite sluggish compared with the camera's phase-detection system.

(While we were performing our tests, we read reports that some 5D Mark III owners have noticed a problem with light from the illuminated LCD display on the top of the camera interfering with the metering system. We encountered no such light leak

CONTINUES ON PAGE 104

GRASLON
Why Graslon Flash Diffusers Over Others?

Graslon Diffusers Provide Their Own Bounce!
with
Internal Bounce Technology

Graslon products use mirrors to take full advantage of the diffusion surface area, leaving no hot or dead spots. The light is enlarged first, and a larger source creates a more natural and pleasing light.
Join the growing ranks of Graslon users!
www.graslon.com sales@graslon.com
(214) 905 - 9576

The leader of tripod head design for over 45 years creates a new revolutionary *K*nobless ballhead.
It's called *K*nobless because the traditional locking knobs have been removed.
Equipped with our patented (planetary) p-system, ARCA-SWISS **p** is a unique tripod head design that combines precision, ease of use, and a powerful, concentric, uniform locking force. Featuring our patented gravitational force compensation, sudden camera movements altering camera position are prevented. The ARCA-SWISS **p** is stylish, precise and strong, yet weighs under 10 ounces.
A hand of steel in a velvet glove!
ARCA SWISS
ARCA-SWISS INC
Phone: 480 755-3364
E-mail: support@arca-swiss.com

ARCA-SWISS monoball® **p** series

PRODUCT SERVICES DIRECTORY

photobacks™
DIGITAL TEMPLATES, BACKDROPS & MORE

MODERN CLASSIC

Enjoy 100+ fully layered, customizable Photoshop Templates with a modern twist on classic design! Package includes multiple photo book template spreads, card designs, portrait templates and more! Plus, Photoshop Actions and Video Tutorials! Perfect for all styles including weddings, portraits and seniors! Simply drag and drop! Print at any lab!

Reg. Price: $119.95

SALE! Only $69.95

PLUS! ENJOY AN EXTRA

15% OFF

ANY ORDER! USE COUPON CODE: POP787

www.photobacks.com

FREE DOWNLOAD! Like us on Facebook!
www.facebook.com/photobacks

coupon code expires: 7/31/12

Jim Cline
PHOTO TOURS

Small Group Sizes!

- Machu Picchu
- India Pushkar Fair
- Day of the Dead
- Angkor Wat
- Vietnam
- Philippines
- Myanmar
- Guatemala

www.JimCline.com
877-350-1314

The Acratech GP Ballhead

- Weighs less than1 lb (.45kg)
- Solidly holds 25 lbs (11kg).
- Works as a Ballhead, a Gimbal Head and as a Panoramic head.

Made in the USA.

www.acratech.net
(909) 392-7522

affordable, convenient education

serious education for the serious photographer

We provide a dynamic, interactive and "live" instructional platform while allowing our students to benefit from the convenience and savings of the Internet. Our courses are provided within a well-constructed curriculum taught by experienced photographers and quality instructors.

BALLINPHORT
Academy of Photographic Arts

DIGIMARC
this ad contains digitally watermarked content

www.ballinphortacademy.org

RELIABLE PHOTO, INC.

ONLY $11.95
20x30 or 20x24

From any Digital File or Negative!!!
Color corrected 4x6's only $0.29
Finishes available: matte, glossy, metallic & textured

We can convert your old 8mm to DVD

Digital Prints on Professional Photographic Paper

QTY.	5x7	8x10	11x14	16x20	20x24	20x30	30x40
1	.99	1.99	4.99	10.00	10.90	11.95	49.95
10	.90	1.75	4.75	9.79	10.75	11.75	47.95

Add $8.50 for S&H
522 W. Wise Rd., Schaumburg, IL 60193
847-673-1234
Order online! www.reliablephoto.com
reliablephoto@gmail.com

www•CAMBRIDGEWORLD•com

New, Used, Refurbished, Preowned Collectables At Discounted Prices

We Buy, Trade, Export, Import Anything Photographic, Online Sales & Wholesale

1-800-221-2253 • 1-718-858-5002 • 1-212-675-8600

WE WILL BEAT AND MEET DISCOUNT PRICES!

CALL OR EMAIL US AND WE WILL SAVE YOU $$$$$$$$$$$$$$$$$"

CAMBRIDGE WORLD

MORE THAN 50 YEARS OF EXPERIENCE

email: Sales@CambridgeWorld.com

"Good Contact and Fast Shipment Thanks"

Justin B., Omaha, NE

Please see website for more testimonials.

DIGITAL & FILM CAMERAS

LENSES, FLASHES, SCREENS PAPER AND ACCESSORIES

Canon, Casio, Fuji, Hasselblad, Kodak, Leica, Mamiya, Nikon, Olympus, Panasonic, Pentax, Polaroid, Samsung, Sanyo, Sigma, Sony, Vivitar, Etc -

Memory Cards • Delkin, Kington, Lexar, SanDisk, Nikon Fuji, Olympus, Sony, Panasonic, Etc.....CALL

Large selection of BATTERIES available at discount prices....CALL

LARGE SELECTIONS OF NEW AND USED CLASSIC CAMERAS

LENSES AND ACCESSORIES IN STOCK AT LOW DISCOUNT PRICES!

Agfa, Alpa, Ansco, Arca-Swiss, Bolex, Bronica, Canon, Contax, Contarex, Edixa, Exa, Exakta, Fuji, Fujica, Gami, Hasselblad, Kodak, Konica, Kowa, Leica, Leitz, Linhof, Mamiya, Mercury, Minolta, Minox, Miranda, Nikon, Nikonos, Olympus, Pentacon, Pentax, Petri, Plaubel, Polaroid, Praktica, Praktina, Retina, Revere, Ricoh, Robot, Rollei, Rolleiflex, Sea & Sea, Stereo Realist, Tessina, Topcon, Toyo, Voigtlander, Wollensak, Yashica, Zeiss, Etc.

Apple iPhone 4 and 4S New iProlense Set

Includes:
* Wide Angle Lens Gives 35% Wider Field
* Fisheye Lens 165° PanoramicLens
* Case with Tripod attachment.

Complete Set *ONLY!* ***$189.00***

TELEPHOTO LENS for the IPHONE...***$99.95***

NEW iPHONE color photo printer...***$159.95***

NEW all weather waterproof case to waterproof to 15ft for the iPHONE...***$39.99***

VIVITAR

NEW SERIES 1 LENSES

7mm F3.5.....324.95 13mm F2.8...409.95
35mm F1.4....499.95 85mm F1.4....324.95
500mm F8....107.95 500mm F6.3..169.95

650-1300 F8-16...299.95
800mm F8.....239.00

NEW FLASHES

16M.....19.95 DF 183 AF....44.95
DF 283 AF...89.95 285HV.....87.00
DF 293 AF...89.95 DF 383 AF...124.95
385 HV.....149.95 DF 483 AF...159.95

Free Shipping with any Vivitar Lenses or Flashes

LENSES

We Offer MORE THAN 1,000 DIFFERENT LENSES at LOW DISCOUNT PRICES!!!

Canon, Cosina, Nikon, Pentax, Olympus, Leica, Sony, Minolta, Vivitar, Schneider, Mamiya, Hasselblad, Rodenstock, Zeiss, etc.

SIGMA

Sigma SD15, SD10, SD9 SA7, SA9	CALL
4.5mm F2.8	838.95
8mm F3.5	828.95
10mm F2.8	598.95
15mm F2.8	568.95
20mm F1.8	588.95
24mm F1.8	498.95
28mm F1.8	308.95
30mm F1.4	418.95
60mm F2.8	278.95
400mm F5.6	299.95
85mm F1.4	848.95
800mm F5.6	6698.95
12-24mm F4.5-5.6	848.95
18-50mm F2.8-4	188.95
18-50mm F2.8	378.95
18-125mm F3.8-5.6	318.95
8-16mm F4.5-5.6 DC	648.95
28-70mm F2.8-4	88.95
28-200mm F3.5-5.6	174.95
35-135mm F4-5.6	99.95
50-200mm F4-5.6	148.95
50-500mm F4-6.3	948.95
70-200mm F2.8	888.95
70-300 F4-5.6 APO	188.95
70-200mm F2.8 EX OS HSM	**1298.95**
100-300mm F4	1098.95
200-500mm F2.8 APO EX DG	25998.95
300-800mm F5.6 EX BE HSM	7698.95
1.4X APO	218.95
2X APO	278.95
50mm F1.4	468.95
50mm F2.8	234.95
70mm F2.8	468.95
105mm F2.8	458.95
150mm F2.8	688.95
180mm F3.5	728.95
300mm F2.8	2998.95
500mm F4.5	4598.95
10-20mm F4-5.6	478.95
500mm F7.2	399.95
10-20mm F3.5	598.95
17-70mm F2.8-4.5	458.95
18-200mm F3.5-5.6	238.95
18-250mm F3.5-5.6	448.95
24-70mm F2.8	878.95
17-50mm F2.8 EX DCOS HSM	**648.95**
28-70mm F2.8	318.95
28-300mm F3.5-6.3	234.95
50-150mm F2.8	698.95
55-200mm F4-5.6	124.95
70-300 F4-5.6	148.95
70-300mmDGOS	368.95
100-300mm F4-5.6	99.95
120-300mm F2.8	2698.95
150-500mm F5-6.3	989.95
120-400 F4.5-5.6	938.95
1.4X Teleconverter	29.95
2X Teleconverter	69.95
1.5X Teleconverter	69.95
1.7X Converter	99.95
0.42X Fisheye Lens	39.95
0.45X Wide Angle Lens	39.95

LENSES FOR MOST MANUAL & AUTOFOCUS AF CAMERAS

8mm F3.5	279.95
24mm F2.8	79.95
28mm F2.8	49.95
35mm F2.8	39.95
50mm F1.8	69.95
50mm F1.4	189.95
85mm F1.4	308.95
100mm F3.5	119.95
800mm F8	219.95
500mm 1000mm combination	129.95
19-35mm F3.5-4.5	149.95
28-105mm Zoom	99.95
28-300mm F4-6.3	169.95
70-210mm Zoom	79.95
75-300mm F4.5 Macro Zoom Lens	89.95
100-300mm F5.6-6.7	99.95
650-1300mm F8 Long Zoom Lens	249.95
1000-4000mm zoom	349.95
1.4X Teleconverter	99.95
2X Teleconverter	29.95
1.5X Teleconverter	69.95
0.45X Wide Angle Lens	39.95
14mm F2.5	398.95
135mm F3.5	29.95
135mm F2.8	49.95
200mm F3.5	79.95
300mm F5.6	99.95
400mm F6.3	99.95
500mm F8	99.95
500mm F6.3	124.95
1000mm F11	799.95
28-80mm F3.5-5.6	79.95
28-210mm F3.5-5.6	99.95
35-105mm Zoom	119.95
75-150mm F3.5	49.95
100-500mm F5.6-8	395.95
3X Converter	69.95
1.7X Converter	99.95

TAMRON

14mm F2.8	989.99
28mm F2.5	99.99
24mm F2.5	79.95
11-18mm F4.5-5.6	434.95
18-200mm F3.5-6.3	244.95
18-270mm	548.95
20-40mm F2.7-3.5	298.95
28-105mm F2.8	298.95
24-70mm F3.3-5.6	89.95
28-80mm F3.5-5.6	68.95
28-300mm F3.8-5.6 VC	584.95
55-200mm F4-5.6	128.95
70-200mm F2.8	664.95
60mm F2 Macro	498.99
1.4X Converter	124.95
1.4X SP Converter	178.95
90mm F2.8	348.95
180mm F3.5	628.95
500mm F8	198.95
17-50mm F2.8	334.94
18-250mm F3.5-6.3	414.95
19-35mm F3.5=4.5	159.95
24-135mm F3.5-5.6	398.95
28-200mm F3.8-5.6	118.95
28-75mm F2.8	348.95
28-300mm F3.8-5.6	294.95
200-400mm F5.6	298.95
75-300mm F4-5.6	128.95
200-500mm F5-6.3	758.95
10-24mm F3.5-4.5	458.99
2X Tele Converter	138.95
2X SP Converter	208.95

TOKINA

16-28mm F2.8	849
35mm F2.8	438.95
10-17mm F3.5-4.5	444.95
11-16mm F2.8	564.95
12-24mm F4	424.95
16-50mm F2.8	594.95
16.5-135mm F3.5-5.6	424.95
17-35mm F4	719.00
100mm F2.8	384.95
28-200mm F3.5-5.6	99.95
50-135mm F2.8	674.95
80-400mm F4.5-5.6	638.95

KENKO TELECONVERTER

1.4x..99.95 1.5x..84.95 2X..129.95 3X..219.95

SAMSUNG/ROKINON/BOWER

7.5mm F3.5...299.00 8mm F3.5...299.00 14mm F2.8...399.00
35mm F1.4...499.00 85mm F1.4...299.00 500mm F8...99.99
500mm mirror..119.99 500mm F6.3..159.99 800mm F8...219.99
24mm F1.4...5699.00 **650-1300mm f8-16 Zoom Lens....279.99**

NEW SCHNEIDER PC TS LENSES

50/2.8 HM Super Angulon	3498.99
90/4.0 HM Makro-Symmar	3198.99
120/5.6 HM Aspheric Apo-Digitar	4698.99

ASK

IF YOU DO NOT SEE IT, IT DOESN'T MEAN WE DO NOT HAVE IT,

1-800-221-2253

LEICA HEADQUARTERS!!!

Large selections of NEW & USED LEICA cameras, lenses, filters and accessories at low discount prices ASK for Joseph

NEW POLAROID INSTANT DIGITAL CAMERA

Print your pictures *148.99*

WE HAVE MORE THAN

2,000 New Projection and Quartz Bulb Lamps in stock for Older and Newer Projectors.

CALL Alex 1-800-221-2253

SPECIAL of the MONTH

INSTRUCTION MANUALS

WE DO HAVE MORE THAN 5000 INSTRUCTION BOOKS IN STOCK EMAIL US AT SALES@CAMBRIDGEWORLD.COM OR CALL 1-800-221-2253 AND ASK FOR PAUL

Rollei & Rolleiflex Headquaters

* Large selsctions of new and used Rollei and Rolleiflex cameras,lenses and accessories at discount prices!!!!!

CALL WILLIAM at 1-800-221-2253

NOVOFLEX Adapters Lenses Accessories.....CALL

EXPOSURE LIGHT METERS

Cambron, Gossen, Kenko, Sekonic, Minolta, Pentax, Polaris, Shepard, Soligor, Spectra, Wein, Etc. - CALL

FLASHES

Ansmann, BRNO, Canon, Cambron, Elinchrome, Gary Fong, Metz, Minolta, Multiblitz, Nikon, Novacon, Norman, Novatron, Olympus, Pentax, Photogenic, Quantum, Sigma, Stroboframe,Stratos, Smithvictor, Sunpak, Sony, Vivitar, Etc. CALL

PROJECTORS & VIEWERS

Braun, Canon, Epson, GEPE, Kodak Carousel and Ektagraphic,Kaiser, Panasonic, Optoma, Sanyo, Sharp, Telex Da-Lite Screens, Slide Mounts,Vue-all Etc. CALL

DARKROOM / ENLARGERS

Beseler, Durst, Fujimoto, KAISER, LPL, Omega, Etc Enlarging Lenses & Darkroom Accessories. Large selection of papers available (Kodak, Ilford, Fuji, Forte, Etc.) - CALL

LARGE & MEDIUM FORMAT

Alpa, Arca Swiss, Bronica, Contax, Fuji, Cambron, Hasselblad, Linhof, Kiev, Mamiya, Rollei, Rolleiflex, Toyo, Wista, Yashica, Etc. CALL

TRIPODS

Arca Swiss, Bogen, Cambron, Cullman, Berlebach, Giottos, Davis & Sanford, Gitzo, Impact, Linhof, Manfrotto, Slik, Sunpak, Tiltall, Vanguard, Velbon, Etc. - CALL

FILM (ALL SIZES)

Kodak, Ilford, Fuji, Polaroid, AGFA, Etc. CALL

PANORAMA

Fuji, Hasselblad XPAN, Horizon, Horseman, Linhof, Noblex, Silvestri, Widelux, Etc. CALL

CASES & GADGET BAGS

Billingham, BobLBee, Domke, Lowepro, Pelican, Rimowa, Tamrac, Tenba, Zero Halliburton CALL

SELL TO US!!

WE PAY FOR YOUR RETIRED GEAR!

TOP DOLLAR$$$

Nothing is too Small or too Large Anything Photographic !!!!!

Estate Sales Welcome!!! You can mail your gear or we can pick your gear up. You can trade-in your gear or we will pay you with a check or with Paypal. CALL **1-800-221-2253** and ask for Simon Or Email us at sales@cambridgeworld.com

Send your equipment for a FREE evaluation to: Cambridge World 34 Franklin Ave., Brooklyn, New York 11205

TOP QUALITY EXPERIENCED REPAIR SERVICE

AT DISCOUNT PRICES!

Send your equipment for a FREE repair estimate to: Cambridge World 34 Franklin Ave., Brooklyn, New York 11205

USED DEPARTMENT

We have more than 30,000 Used items. Email us your Wish Listat sales@cambridgeworld.com or CALL 1-800-221-2253 and we will assist you and SAVE you $$$$$$. No item is too small or large. Listing is very partial.

Bronica S2A, EC	Call	Bronica GSI	399.50	Canon 24mm F1.4	989.00	Olympus XA	79.99
Bronica ETR	99.95	Bronica SQ camera	199.99	Canon 50mm F1.4	229.00	Minolta 160	69.99
Canon A2E	79.99	Canon 1V	499.99	Canon 85mm F1.2	1,299.00	Minolta 70	49.99
Canon Elan 7E	449.99	Canon 1X	69.99	Canon 300mm F2.8	2,199.00	Canon 120	79.99
Canon rebel 2000	89.99	Canon Elan	69.99	Canon 16-35mm F2.8	889.00	Canon 105	49.99
Canon F1	119.99	Canon VT	299.99	Canon 24-105mm F4	789.00	Leica minilux	199.99
Canon rebel XT	299.99	Canon XTL	399.99	Canon 28-300mm F3.5	1,299	Contax T2	199.99
Contax G2	699.99	Contax N1	349.99	Canon 70-200mm F2.8	1,199	Yashica T4	99.99
Contax RTS III	699.99	Exakta RTL	149.99	Canon 100-400mm F4.5	1,199	Nikon lite touch	49.99
Exakta VX	99.99	Fuji Digital S3	399.95	Canon 430EX	189.00	Konica 120	49.99
Fuji S5 digital	799.95	Exakta VX 1000	129.50	Canon 580EX	269.00	Nikonos II	99.99
Hasselblad 500C	149.99	Hasselblad 503CW	499.95	Canon 24-70mm F2.8	899.95	Olympus 140	49.99
Kodak Retina IIIc	99.95	Retina Reflex	99.99	50mm F1.4 Zeiss Planar	209.00	Pentax 115	59.99
Leica IF	499.99	Leica IIIG	699.99	80-200mm F4 sonnar	199.00	Minox GT	199.99
Leica IIIF	299.99	Leica M3	499.99	Hasselblad 150mm F4	299.00	Rollei 35	129.99
Leica R3	199.99	Leica R8	749.99	Leica 35mm F2 Summicron M	899	Canon rebel X	49.99
Mamiya RB67	199.99	Minolta X700	99.99	Leica 50mm F2 Summicron M	399	Minolta 7000	39.99
Minolta XTi	59.95	Maxxum HTsi	69.99	Leica 135mm F4.5 Heltor Screw	129	Petri V	79.99
Maxxum 7000	49.95	Maxxum 5000	39.95	Leica 50mm F2 Summicron R	349.50	Exa	69.99
Maxxum 9000	69.95	Maxxum 700I	119.95	Mamiya 55mm F2.8	99.00	Praktica TL	69.99
Maxxum 5D	199.95	Maxxum 7D	299.99	Mamiya 180mm F4.5	149.00	Ricoh XRP	99.99
Nikkormat FTN	99.95	Nikkormat FT2	119.94	Minolta 50mm F1.7	19.00	Canon canonet	49.99
Nikon F	99.99	Nikon F2	119.99	Minolta 80-200mm F4.5-6	69.00	Canon dial	49.99
Nikon FA	169.99	Nikon F100	199.99	Minolta 5400HS	79.00	Canon P	239.99
Nikon F3	129.99	Nikon FM10	129.99	Maxxum 50mm F1.7	69.95	Hasselblad x-pan	999.99
Nikon F5	349.99	Nikon D40	199.99	Nikon 50mm F1.4	69.00	Mamiya 500 DTL	79.99
Nikon D200	699.99	Nikon N55	66.99	Nikon 18-200mm F3.5	349.00	Leica c-lux	299.99
Nikon N90	99.99	Nikon N8008	79.95	Nikon 80-200mm F2.8	399	Leica CL	499.99
Nikonos V	179.99	Nikonos II	79.95	Nikon SB600	269.00	Mamiya 7	699.99
Olympus OM1	129.99	Olympus OM4	179.99	Nikon SB900	349.00	Mamiya C220	99.99
Pentax K1000	99.99	Pentax LX	299.99	Olympus 50mm F1.8 Zuiko	39.00	Yashicamat	129.99
Pentax 645	249.99	Rollei 35M	119.99	Olympus 70-210mm F4.5	99.00	Minolta 70	59.99
Rolleicord V	149.99	Rolleiflex F3.5	499.99	Olympus 50mm F1.4	99.95	Minolta 9Xi	149.99
Topcon super RE	249.99	Topcon UNI	79.95	Panasonic 14-50mm F2.8	479.00	Kodak C800	49.99
Voigtlander Bessa	599.99	Vitomatic II	99.95	Pentax 28-80mm F3.5	39.00	Samsung 170	69.99
Voigtlander Bessamatic	129.99	Vittrsa	99.95	Pentax 35-80mm F4	44.00	Pentax auto 110	69.99
Yashica FX3	69.99	Yashica FR1	69.95	Sigma 70mm F2.8	379.00	Nikon F100	169.99
Zeiss Contarex	299.99	Zeiss Icarex	149.99	Sony 16-80mm F3.5	499.00	Olympus IS	79.99
Canon 5D	1,499.00	Nikon 35Ti	369.50	Sony 55-200mm F4	99.00	Miranda FV	99.99
Canon 40D	699.00	Nikon FM 3A	399.00	Vivitar 500mm F8	69.00	Pentax PZ1	109.99
Contax Aria	299.95	Nikon F4	399.00	Vivitar 283 Flash	29.95	Contax Ila	139.99
Exakta 66	999.99	Nikon D300	1,099.00	2X Teleconverter Extended Lens	29.95	Contarex	249.99
Leica M6	999.99	Nikon D200	499.00	3X Teleconverter Extended Lens	39.95	Nikon 35Ti	299.50
Minolta SRT 101	69.95	Olympus E-520	249.00			Nikon 28Ti	349.95

BINOCULARS

TELESCOPES, RIFLESCOPES, RANGEFINDERS

We offer one of the Largest selections of BINOCULARS, TELESCOPES, RANGEFINDERS AND RIFLESCOPES AT LOW DISCOUNT PRICES!!! We also offer you more than 500 DIFFERENT BINOCULARS!!!!!!! BUSHNELL, BAUSCH&LOMB, CAMBRON, CANON, CARSON, CELESTRON, DOCTER, FUJI, FUJINON, JASON, KOWA, LEITZ, LEICA, LEOPOLD, MEOPTA, MINOLTA, MINOX, OLYMPUS, PENTAX, SAMSUNG, SPALDING, STEINER, SWIFT, TASCO, VANGUARD, VIVITAR, VIXEN, VORTEX, WEENS & PLATH, ZEISS.

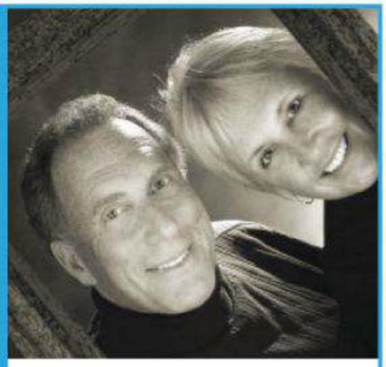
FOR YOUR SPECIAL PRICE CALL

FILTERS

JUST RECEIVED MORE THAN 10,000 FILTERS FOR OLDER AND CURRENT MODEL CAMERAS. CALL ADAM 1-800-221-2253 FOR YOUR SPECIAL DISCOUNT PRICE.

B+W, Heliopan, Hoya, Promaster, Kenko Cambron, Cokin, Sunpak, Tiffen, etc CALL

1-800-221-2253 • 1-718-858-5002 • 1-212-675-8600 email: Sales@CambridgeWorld.com



www.silvermansphotography.com

SILVERMANS PHOTOGRAPHY WORKSHOPS

- Inspiration
- Location
- Education

707 545 1438
info@silvermansphotography.com

Augusta Photo Festival
October 27-November 4
2012
A biennial celebration of photography in scenic Augusta, Georgia
Competition over $2000 cash prizes (deadline Aug. 1)
Photo Safaris – Photo Events
Workshops – User Groups – Exhibitions
Augusta Photo Festival
AugustaPhotoFestival.org
706.834.9742

jobu design
Advanced Photographic Gear for Nature and Sports Photography
Spring into a new level of control!
Our new Jr.3 gimbal is lighter, smoother and stiffer for better telephoto images.
BWG-J3K
UNDER 1.5lbs!
Extra Light Gimbal for telephoto lenses up to 10lbs
MSRP $349 US as shown
See our complete lineup at:
www.jobu-design.com
Toll Free 1-888-321-JOBU (5628)
Made in Canada

OMNI-BOUNCE
Used by Professionals around the world, to achieve soft natural lighting with most of the popular brand flash units. Ideal for wide angle shots, macro work, portraits and news coverage. Custom mounting with no Velcro required. Specify your strobe when ordering.
Only $19.95 + $2.50 shipping, Visa, MasterCard & AMEX
STO-FEN PRODUCTS
800-538-0730
P.O. Box 7609, Santa Cruz, CA 95061, USA
www.stofen.com

TURN YOUR PHOTOS INTO GREETING CARDS!
Step 1: Simply peel adhesive liner and place photo behind window.
Step 2: Fold to conceal back of photo.
Step 3: You've just made a beautiful matted photo greeting card!
For personal use or as a business opportunity. Professional, quick and affordable in over 500 designs.
Contact us for a free catalog and sample.
10% off for first time customers.
PHOTOGRAPHER'S Edge
Your image | our frame | a lasting impression
www.photographersedge.com
800-550-9254

ATHENA PHEROMONES™
Created by Dr. Winnifred Cutler, co-discoverer of human pheromones in 1986.
INCREASE AFFECTION
Unscented Formulas for Men and Women.
EFFECTIVE FOR 74% IN AN 8 WEEK PUBLISHED SCIENTIFIC STUDY. Vial of 1/6 oz. added to 2-4 oz. of fragrance, worn daily lasts 4 to 6 mos. Will work for most, but not all. 10:13 for women $98.50, 10X for men $99.50.
♥ Jay (WA) "It took about a week for my wife to completely change her reaction to me...With the 10X, now she is flirty and loving like 30 years ago when we were first married!"
♥ Julie (Canada) "I tried the pheromone for the first time last night. My husband professed his love for me 4 times in 30 mins. Let's just say this result is way above baseline."
FREE US SHIPPING
Not in stores 610-827-2200
or view the science and order online at
www.Athenainstitute.com PP

The Ultimate Digital Print
©Stuart Fall
AutumnColor Luminage™
Realize the unlimited potential of each image! A fine arts lab, focused on customized jobs to meet the immediate needs of the artist, as well as insuring the archival life of prints. Visit us at www.autumncolor.com or call 800-533-5050.

The Last "Can of Air" You'll Ever Have To Buy!

New DataVac® Electric Duster,® the high-performance "green" alternative to throwaway "canned-air" camera/computer dusting products. All-steel, built to last, no condensation... ***Costs less than 5 "cans of air"!***

Call for info: 1-800-822-1602
www.DataVacElectricDuster.com

MADE IN USA BECAUSE IT MATTERS

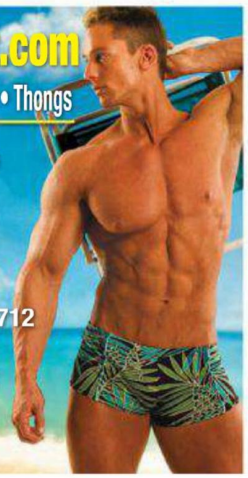
METRO® *Family Owned Since 1939*

Metropolitan Vacuum Cleaner Co., Inc., Suffern, NY 10901

prevailsport.com

Swimwear • Underwear • Thongs
for men

TO ORDER A CATALOG
visit
PrevailSport.com
or call
1-800-316-5136
or mail $4 to
Prevail Sport - PP712
PO Box 93099
Atlanta, GA 30377



PREVAIL SPORT

EPIC PHOTO TOURS

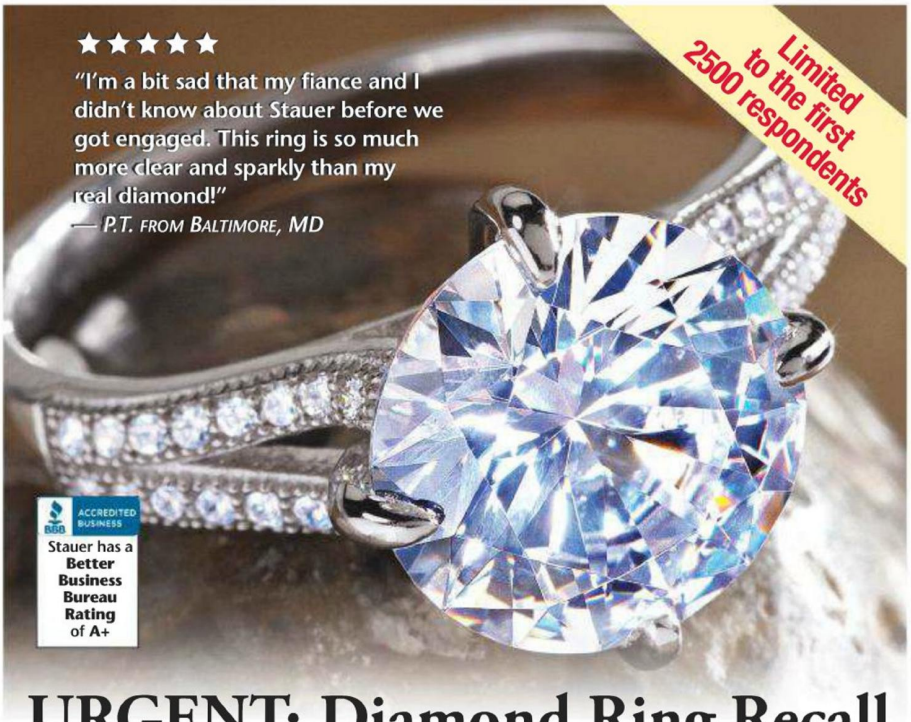
AMAZING TRIPS | SMALL GROUPS

WWW.EPICPHOTOTOURS.COM
203.252.6958

★★★★★

"I'm a bit sad that my fiance and I didn't know about Stauer before we got engaged. This ring is so much more clear and sparkly than my real diamond!"
— *P.T. FROM BALTIMORE, MD*

Limited to the first 2500 respondents



ACCREDITED BUSINESS
Stauer has a Better Business Bureau Rating of A+

URGENT: Diamond Ring Recall

Experts warn that millions of rings may be "romantically defective" when compared to the spectacular 4-Carat DiamondAura® Avalon

She loves natural diamonds. She loves you even more. But when even the skimpiest solitaires sell for as much as $1,200, it's time to reconsider your relationship...with diamonds. Have you recently overpaid only to be underwhelmed? Send it back. You can do bolder. You can do brighter. You can own the Stauer 4-Carat Diamond*Aura*® Avalon Ring for under $100.

When "cute" is a four-letter word. If you want to make a romantic impression, go big. Cute doesn't cut it. Your love deserves to be wowed. If you're a billionaire with money to burn, turn the page. Everyone else? What you read next just might change your love life. There's only one way to find out...

We rewrote the rules of romance. Only Stauer's exclusive lab-created Diamond*Aura* gives you the luxury look of large-carat diamonds for a fraction of the price. The ingenious Diamond*Aura* process involves the use of rare minerals heated to incredibly high temperatures of nearly 5000°F. After cutting and polishing, scientists create a faultless marvel that's optically brighter and clearer with even more color and fire than a "D" flawless diamond.

Our exclusive Diamond*Aura* jewelry features all of the classic specifications, including color, clarity, cut and carat weight and is hard enough to cut glass. You get the look of natural stones, without the outrageous cost.

Experience the luxury of money in the bank. We "built" our own mined diamond version of this ring online at a popular jewelry site and the grand total was $77,767! Today you can wear this 3 ¾ carat lab-created Diamond*Aura* solitaire, accented with 32 gleaming Diamond*Aura* rounds in fine .925 sterling silver for only $99! ***That's good, but you deserve better.*** Order now and we'll include the matching 1-Carat Diamond*Aura* Avalon Earrings and $300 in Stauer Gift Coupons... absolutely FREE. That's right, 5 total carats of Diamond*Aura* in sterling silver for under $100. Plus, one dozen $25 coupons that you can use at Stauer every month for a full year. Talk about money in the bank!

Your satisfaction is guaranteed. If for any reason you don't absolutely adore your Diamond*Aura* Avalon Ring, return it within 30 days for a full refund of your purchase price. But we promise that once you get a look at the Avalon up close, you'll see love in a whole new light.

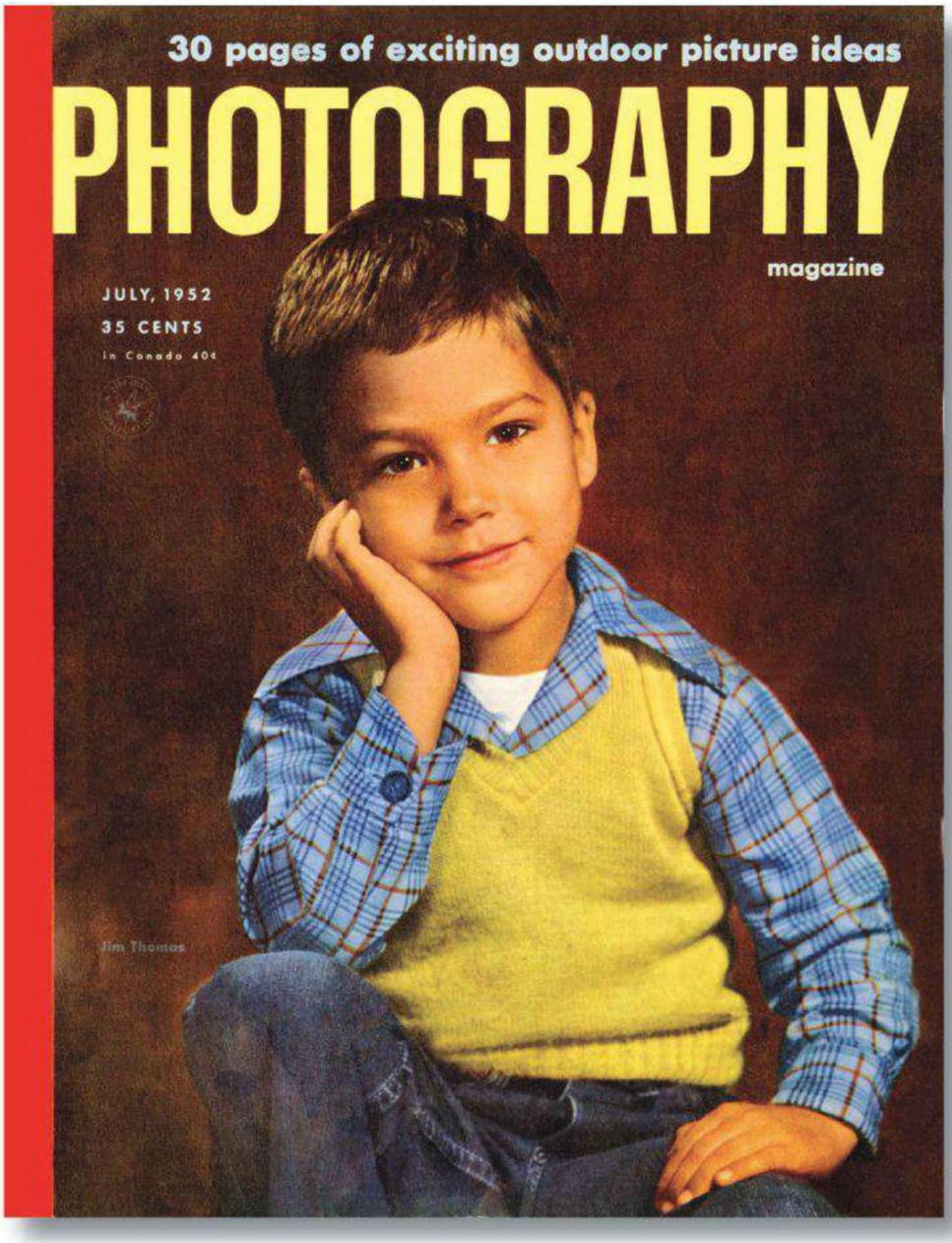
Diamond*Aura*® Avalon Ring (4 ctw)~~—$295~~
$99 + S&P *Specify ring whole size 5-10 when ordering.*
Receive FREE earrings with purchase of the Avalon Diamond*Aura*® Ring *PLUS *receive $300 in Stauer Gift Coupons per order FREE—$25 to use every month for 12 months, with NO MINIMUM PURCHASE REQUIRED.*
Call now to take advantage of this extremely limited offer.

Promotional Code AVR330-03
Please mention this code when you call.

EXCLUSIVE BONUS OFFER!
Order today to get these 1-Carat DiamondAura® sterling silver studs ***PLUS*** *$300 in Stauer Gift Coupons!**

For fastest service, call toll-free 24 hours a day
1-800-721-0357

Stauer®
14101 Southcross Drive W.,
Dept. AVR330-03
Burnsville, Minnesota 55337
www.stauer.com



▲ All-American Boy

In a departure from the cover's usual babies and young women, "Jacko" Garrett sat for this early-morning portrait. He had just gotten up and was told he had to pose for his picture before going out to play. This appealing photo was made by Jim Thomas, a "Chicagoan gone Texan," using a National one-shot three-color camera fitted with a 12-in Goerz Artar apochromatic color lens. Exposure was 1/50 sec at f/9 on Eastman Super Panchro-Press Type B film through A, B, and C5 color-separation filters, with lighting from GE 22 flashbulbs.

60 YEARS AGO

The issue's technical advice included a seven-page feature, "Filters and How They Work."

▼ Daredevil Drivers

Photographers looking for new camera thrills were advised to try shooting motor racing, described by author/photographer Boyd Harnell as the world's most dangerous sport. His photo of a midair collision seems to bear out his statement. He used a Robot 35mm camera, which incorporated a powerful spring motor that permitted split-second sequence shots.

▲ Shooting the Family

In a major feature, *Life* writer John Bryson described his perceptive approach to photographing his family using what could be described as a photojournalistic style. Typical is this closeup of son John absorbed with a toy cowboy. Bryson used a Leica and a single flash lamp. Despite his use of flash, the effect simulates available light.

▲ Violent Play

When dancer-turned-photographer Vivian Cherry searched for subjects, she came up with this documentary of violence in children's play. Her images capture the cruel, often sadistic elements of their fanciful games. Cherry's photos, like the games themselves, are dramatic and very realistic. She took this photo in the Yorkville section of Manhattan using a Rolleicord with a Schneider f/3.5 Xenar lens and Kodak Super-XX film.

—Harold Martin

ADORAMA PRO IMAGING

Visit our new Pro Imaging Shop in New York City's stylish Chelsea!

Get expert, one-on-one advice from our staff of professionals

Take advantage of one-stop shopping with our pro lab and rental department

Get hands-on experience with the most exciting new photo and video gear

Scan and you can win $100!

ADORAMA
MORE THAN A CAMERA STORE

42 West 18th Street
New York, NY 10011
888-270-6151
www.adorama.com

GUARANTEED IN STOCK!!
If it's not in the store, we'll
SHIP FOR FREE!

ADORAMA
MORE THAN A CAMERA STORE
Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM
MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

Vivitar® is back
Series 1 We make it Easy

$499.95
VIV-35mm
Ultra Fast Wide Angle Lens
Available for Canon® Nikon® Sony® Pentax®
35mm High Speed F 1.4

$34.90
VIV-RC-200
Wireless Shutter Release
Available for Canon® Nikon® Sony® Olympus®
Instant Release, Multi Exposure
2 Second Release, Long Exposure

STARTING AT
$19.95
VIV-VNDX
Variable NDX Fader Filter
Available from 37 mm to 82 mm
Adjustable From ND2 - ND1000
Create the Perfect Picture Everytime

$149.95
VIV-385-HV
Auto Aperture LCD Flash
Compatible with All Digital & Film Cameras
High Speed Synchronization
Thyristor Zoom

$94.95
VIV-1.4 X
1.4x TELE Converter
Available for Canon® Nikon® Sony® Pentax®
Mulitcoated Optical Glass
Increases Focal Length by 1.4x
For Telephoto SLR Lenses

STARTING AT
$59.95
VIV-DKS-18, 20, 25
SLR/Laptop Backpack
Available for 14", 15.4" & 17" Laptop
Double Sling Designed for the Traveler
Multiple Versatile Storage Compartments

SAME DAY SHIPPING on orders placed till 7:00pm on Mon-Thur, Friday on orders placed till 1:00pm for all in-stock items. FREE SHIPPING on thousands of items! Plus, Adorama protects you more than ever with our 30-DAY MONEY BACK guarantee! Shop with confidence and rest assured. For complete details, call 800.223.2500 or visit adorama.com
BBB ACCREDITED BUSINESS

CONTINUED FROM PAGE 97

in our test unit, despite extensive attempts to replicate it. If you notice any such problem with your camera, you should check with Canon's customer support.)

Bottom Line

The Canon EOS 5D Mark III is a serious improvement over the aging Mark II. With nominal gains in resolution, the new model adds two more stops of usable sensitivity, gives you a better video and live-view shooting experience, and provides major enhancements to the AF system.

Indeed, for the AF alone, it makes sense for most 5D Mark II owners to upgrade. And 7D shooters who have thought about stepping up to full frame now have an option that won't make them feel as if the burst speed has been chopped.

But if you're trying to choose between Canon and Nikon at this price level—that is, between the Mark III and D800—you'll have a harder decision. The two manufacturers seem to have taken completely different approaches to these cameras: Canon held the line on resolution, while Nikon made a huge leap to a 36MP sensor on the D800 from 12.1MP on its predecessor, the D700.

Given that files from the D800 are huge and take a long time to process, we find ourselves wondering whether fewer pixels are better. For amateur shooters, the Mark III's more manageable file sizes mean they won't have to spend as much on a fancy computer to deal with them. For pros, it means they can spend more time shooting and less time processing. Plus, smaller file sizes mean you won't have to buy extremely high-capacity memory cards.

Of course, once you discover for yourself how much fun it is shooting with the 5D Mark III, we're sure you'll start filling up your cards plenty fast anyway. —*Philip Ryan*

ADORAMA
MORE THAN A CAMERA STORE

adorama.com
42 West 18th St.
New York City, 10011
800.223.2500

Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

SLR Digital Cameras

D800
36.3MP professional HDSLR that breaks new ground in resolution and metering technology.
Full 1080p HD broadcast quality video and minimized rolling shutter
View simultaneous Live View output on external monitors and record uncompressed video via HDMI terminal

NEW
Nikon
STARTING AT
$2999.95

5D Mark III
22 megapixel CMOS sensor ISO range 100-25600, 14-bit A/D conversion Shutter speeds 1/8000-30 seconds, 63-zone dual layer iFCL Metering, 61-point high-density reticular AF with up to 41 cross-type points, 3.2-inch LCD finder with 1.04 million dot resolution

NEW
Canon
STARTING AT
$3499.99

K5
Go ahead and feed your photography obsession with the PENTAX K-5. For you, capturing that great shot isn't a casual interest. It's a part of your life. One spectacular image after another. This camera is the perfect piece of equipment to help you get your photo fix.

PENTAX
STARTING AT
$1099.95

A77
Step up to an incredible shooting experience

24.3MP, Translucent Mirror Technology, 12fps, OLED Electronic Viewfinder, Full HD Movie with AVCHD, 19-point Auto Focus.

SONY
STARTING AT
$1999.99

E5
Built on our revolutionary E-System technology, the new Olympus E-5 adds powerful new features that let you do more than ever before. 12.3 Megapixel Digital SLR Camera Body, CF/SD Dual Slot, 3 Inch Swivel LCD

OLYMPUS
STARTING AT
$1699.99

SD-1M
World's first full color image sensor: Foveon X3 46 Megapixel image sensor
Splash proof design prevents dust and water from getting inside the camera body

SIGMA
STARTING AT
$2299.00

Lenses

Tokina
16-28MM F/2.8 ATX Pro FX
Exclusively for DSLRs, fast internal focusing

$799.00*

TAMRON NEW
24-70mm
F/2.8 Di VC USD
Aspherical (IF) AF Wide Zoom Lens

$1299.00

TAMRON
18 - 270mm f/3.5-f/6.3 DI-II VC
PZD Piezo Drive Ultrasonic Motor Aspherical (IF) AF Zoom with Macro

$549.99*
*AFTER REBATE

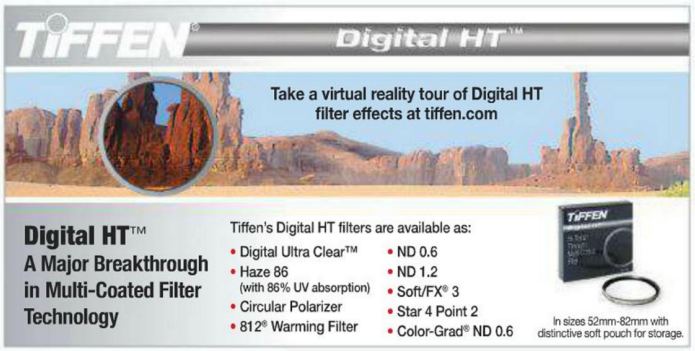
Kenko
Pro 300 AF Converters
Designed for use with 100mm telephoto or above, best w/200mm

SIGMA
17-50mm f/2.8 EX DC OS HSM
Auto focus wide angle zoom lens for portraiture & landscapes

$669.00

SIGMA
70-200mm
f/2.8 EX DG OS HSM Auto Focus Telephoto Zoom Lens

$1399.00


TIFFEN
Digital HT™
Take a virtual reality tour of Digital HT filter effects at tiffen.com
Digital HT™
A Major Breakthrough in Multi-Coated Filter Technology
Tiffen's Digital HT filters are available as:
• Digital Ultra Clear™
• Haze 86 (with 86% UV absorption)
• Circular Polarizer
• 812® Warming Filter
• ND 0.6
• ND 1.2
• Soft/FX® 3
• Star 4 Point 2
• Color-Grad® ND 0.6
In sizes 52mm-82mm with distinctive soft pouch for storage.

Cases & Bags

thinkTANK photo
Retrospective 5 Shoulder Bag
Created for the professional photographer

$129.00

Lowepro
Fastpack 250
Digital SLR & Widescreen Notebook Backpack, Water Resistant

$99.00

Manfrotto
Stile Bella
MBSSB-6SW VI Shoulder Bag for DSLR with Up to 70-200mm Lens,

$49.99

ADORAMA tv
Watch. Learn. **Create.**
4 shows, new episodes daily (M-Th):
adoramatv.com

Adorama Pix
The source for the finest quality digital prints, photobooks and more:
adoramapix.com

Used & Trade
Paying top dollar for your used equipment, get an instant online quote at:
adorama.com/sell

Learning Center
Video tutorials, how-to's, interviews and reviews for photographers of all levels:
adorama.com/ALC

POPULAR PHOTOGRAPHY american PHOTO

ONLINE PORTFOLIO REVIEW

HAVE YOUR PORTFOLIO REVIEWED BY OUR PROFESSIONALS!

This is your chance to have your photography reviewed and critiqued by our experts in the fields of photography, art, media, and advertising, and to receive guidance and mentoring for future career development. All without having to leave the comfort of your own home! By using the latest technologies, our experts will be able to review your work and give you feedback in a very informative and simple way.

Our Online Portfolio Review is the go-to destination for photographers of all levels who want to take the next step in creating an unforgettable portfolio. With a few clicks of your mouse and in just two weeks, you will have an in-depth assessment of your portfolio from your own personal reviewer. It is that simple! All completed reviews will receive a certificate from our editors.

WANT YOUR PHOTOS TO BE THE NEXT PORTFOLIO OF THE MONTH? SIGN UP TODAY TO WIN A CHANCE TO HAVE YOUR WORK HIGHLIGHTED! ▶▶▶

SIGN UP TODAY

POPPHOTO.COM/ONLINEPORTFOLIOREVIEW

"Getting professional feedback on your portfolio helps you grow as a photographer at every stage of your career."

Miriam Levchter

EDITOR OF POPULAR PHOTOGRAPHY

FEATURED PORTFOLIO OF THE MONTH

©MATTHEW KUHNS
ALTA LOMA, CA
15+ YEARS EXPERIENCE

ADORAMA
MORE THAN A CAMERA STORE

adorama.com
42 West 18th St.
New York City, 10011
800.223.2500

Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

Rangefinder Style Cameras

FUJIFILM

Finepix X100

12.3 MP, SD/SDHC/SDXC Memory Card, 23mm F/2 Lens, 2.8 inch LCD Monitor
Combines all the latest technical digital innovations in a beautiful, traditional chassis which oozes class and prestige. Echoing the functional aesthetics of analogue film cameras,

LEICA

M9-P Digital Rangefinder

18 MP, 24 x 36 mm Format Sensor,
Custom designed CCD sensor for optimal performance
Cover glass to elminiate infrared light contamination
Classical "Leica" engraving on the top cover

RICOH

GXR

Interchangeable Unit Body with Ricoh Lens P10 28-300mm f/3.5-5.6 VC Camera Unit, 10 Megapixel

GXR Interchangeable Unit Camera System features the world's smallest and lightest digital camera with interchanegable lens capability

Point & Shoot Digital Cameras

Vivitar

Vivicam 8225

8MP Digital Camera, SD Card Support, 2X Optical, 8x Digital Zoom, 2.4" TFT Screen

PENTAX

Optio RS1500

14 Megapixel Digital Camera, Removable Faceplate, Wide-Angle 4x Optical Zoom,

Nikon

Coolpix P510

16.1 Megapixels, 42x Optical Zoom, 3.0" LCD Display, Built-in GPS

$429.95

SAMSUNG

MV800 MultiView

16.1 Megapixels Digital Camera with 5x Optical Zoom 26mm wide angle Schneider lens

Canon

PowerShot G1 X

14.3 Megapixels, 1.5 inch CMOS Image Sensor, 4x Optical Zoom, 3" Display

$799.99

Panasonic

DMC-ZS15

12.1MP, 1/2.3" MOS Sensor, 24-383mm LEICA DC VARIO-ELMAR Lens, 3" LCD, 16x Optical Zoom, USB

Digital Picture Frames

COBY

DP702

7" Digital Photo Frame with MP3 Player, 480 x 234 Resolution and Classic Wooden Frame

SONY

DPF-HD1000

10.1 inch Digital Photo Frame, 16:10 Aspect Ratio LCD, 1024x600 WSVGA Resolution, 2GB Internal Memory

Omicca

M707Z

7" 800x480 High Resolution Digital Photo/Video/Music Frame, USB

Multimedia Digital Storage

EPSON

Storage & Viewer

with USB 2.0 & 4" LCD P3000 40 GB

HYPERDRIVE
THE DRIVE FOR MORE

Storage & Viewer

with 3.2" LCD, Supports 11 Memory Card Formats Available 120, 160, 250, 320, 500GB

NEXTODI

ND 2730

Backup & preview photos anywhere! 500/750GB. Firewire 800 & USB 2.0 Slots for CF/ SDXC/SDHC

Software

Complete Collection

Adobe

Photoshop Lightroom 4

Adobe

Design Standard CS6

DXO · TECHNOLOGY · datacolor · DARKROOM · xrite · PHASEONE

SAME DAY SHIPPING on orders placed till 7:00pm on Mon-Thur, Friday on orders placed till 1:00pm for all in-stock items. **FREE SHIPPING** on thousands of items! Plus, Adorama protects you more than ever with our **30-DAY MONEY BACK** guarantee! Shop with confidence and rest assured. For complete details, call 800.223.2500 or visit adorama.com

Store Hours
Sunday 9:30am - 5:00pm
Mon-Th 9:00am - 8:00pm
Friday 9:00am - 5:00pm
Saturday Closed

BBB ACCREDITED BUSINESS

ADORAMA
MORE THAN A CAMERA STORE

Adorama's Un-Beatable Service
CLICK BY 7 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM
MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

Professional Video

Canon

XF-305

High Definition Pro Camcorder, CF Card Media, 18x HD L-Series Zoom, HD-SDI Output, Genlock and SMPTE Time Code Terminals. Ideally suited to match the requirements of journalists and film-makers on the go.

$7499.00
CAXF305

Panasonic

AG-HMC150

The Industry's Next Generation Affordable HD Professional 3-CCD Handheld AVCCAM Camcorder, with a Leica 13x Wide-Angle Optical Zoom, 3.5" LCD Monitor, SD/SDHC Memory Card Slot AVCHD.

$2825.00
PCAGHMC150

HD Camcorders

SONY

NEX-VG10

HD Interchangeable Lens Handycam Camcorder

SAMSUNG

HMX-H304

Full HD 16GB Camcorder, 30x Optical Zoom, 3.0 inch Wide Touch Screen LCD

Panasonic

HDC-HS900

220GB HDD, 1920 x 1080p HD, 3.5in Touch Screen LCD, 20x Intelligent Zoom

Canon

VIXIA XA10

64GB Internal Flash Professional Camcorder, 2.37MP

Video Accessories

STEADICAM

Merlin Stabilizer

Stabilization System for Camcorders And HD DSLR Cameras

$798.99

Lupo light

101 Quadrilight 2000

4x55 Watt Fluorescent Light with Local Dimmer,

$975.99

SONY

LMD 9020

9" Professional LCD Multi Format Color Monitor

$998.99

AZDEN

310LX UHF

On-Camera Bodypack and Plug-in System

$538.99

bescor

LED-150 12V

On Camera Dimmable LED Video Light w/ Cigarette Plug (bundle)

$138.99

anton bauer

Dionic HCX

14.4V-120W Lithium-ion Battery

$618.99

I·D·X

Endura E-10

98Wh Li-Ion V-Mount Battery Pack, 14.8 Volts/6.6 Ah

$391.99

ZOOM

Q3HD Handy Video Recorder

2.4 inch Widescreen Color LCD Screen

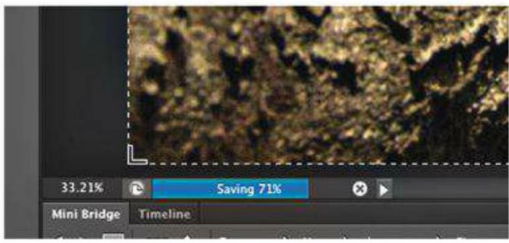
$298.99

SAME DAY SHIPPING on orders placed till 7:00pm on Mon-Thur, Friday on orders placed till 1:00pm for all in-stock items. **FREE SHIPPING** on thousands of items! Plus, Adorama protects you more than ever with our **30-DAY MONEY BACK** guarantee! Shop with confidence and rest assured. For complete details, call 800.223.2500 or visit adorama.com

BBB ACCREDITED BUSINESS

ADOBE PHOTOSHOP CS6

CONTINUED FROM PAGE 86



Saving happens in the background; see your progress in the toolbar in the bottom left corner of your image. You can set your auto-save options in the File Handling area of Preferences.

as a checkbox to refine the selection using face detection. We had good luck with it when our portrait subjects were against brightly colored backgrounds, but logically enough, we had less success with an image of a pinkish person in a pink shirt against a light-brown background. But for many images, it can be a real time-saver.

The Blur Gallery, which we explained in last month's Software Workshop, provides a better way of adding blur to your images. And the new Adaptive Wide Angle tool can correct dramatic lens distortion while giving you control over which angles to fix.

Retouchers who use hundreds of layers will appreciate that these are now searchable, giving users extra incentive to name them; though you can also search by attributes. Plus, there are more new tools for video, and for designers using shapes and text.

We're more excited about CS6 than we have been about a Photoshop upgrade for years. The background save alone is worth a fortune in lost time, and the new retouching tools will likely prove invaluable, too. Moreover, after adjusting to the new interface, time spent in the program is much more pleasant. If you still use Photoshop regularly, we enthusiastically recommend an upgrade.

—Debbie Grossman

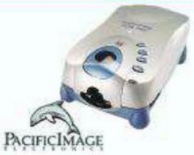
ADORAMA
MORE THAN A CAMERA STORE

adorama.com
42 West 18th St.
New York City, 10011
800.223.2500

Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

Film Scanners

plustek
OpticFilm 7600i SE
7200 dpi Film Scanner with Automatic Dust and Scratch Removal



PACIFICIMAGE
PrimeFilm 7250 Pro3
35mm Film Scanner with 7200dpi, USB & Firewire Interface

FLASHPOINT
Receipt Scanner Scanner
for Up-to 4in x 6in (A6)

$49.95

Flatbed Scanners

EPSON
Perfection V700
Photo Photo Flatbed 4800x9600 dpi, 48 bit, built-in 8"x10" Transparency Unit,

ScanJet 5590
Digital 8.5x11" with Duplexing Automatic Document Feeder, 2400 dpi, USB Interface,

Canon
CanoScan 9000F
9600 x 9600 Optical dpi, USB 2.0 Interface

Pro Printers

Up To $500 Rebate when purchasing a printer together with select DSLR cameras

EPSON
Stylus R2000
Ink Jet Printer, 5760 x 1440 dpi Resolution, 13 inch Printable Area, USB 2.0/Ethernet /Wi-Fi/ PictBridge

Canon
Pixma Pro 9500 Mark II
4800 x 2400 dpi Resolution for Mac & Windows

Designjet 111
24 inch Large-Format Color Inkjet Printer - Roll A1 (24 in), 1200 dpi x 600 dpi, Parallel, USB

Wide Format Printers

EPSON
Stylus Pro 9900
Professional Edition 44" Wide Format Color Inkjet Printer, 10 Color, with USB & 10/100Base-T Ethernet Port

Canon
imagePROGRAF iPF8300
Photo Inkjet Large Format Printer with 1 inch Wide Dual Print Heads, 44 inch Paper

Z3200 Designjet
12 color photo inks including new chromatic red ink, Quad black and Hp gloss enhancer

MP3 Players

Value Added Reseller
iPod Nano
8GB, 6th gen 1.54 inch Multi-Touch LCD Display (In-store only)

SanDisk
Sansa Fuze
MP3 Player, FM Tuner, 2.4" Color 320 x 240 QVGA Screen, Card slot

COBY
MP757-16G
MP3 Video Player with 2.4 inch Display, 16GB Memory, FM and Touch

We carry a full line of
Premium Digital Photo Paper, Inks, Ribbon and Toner
See them all at adorama.com

ProJet
OLYMPUS · Canon · INNOVA
Kodak · INKPRESS · brother · CANSON
hiti · ORIENTAL · HARMAN · SONY
EPSON · PICTORICO · ILFORD · MOAB BY LEGION PAPER
hp · Hahnemühle FINEART · Premier Imaging Products · MUSEO

ADORAMA tv
Watch. Learn. **Create.**
4 shows, new episodes daily (M-Th):
adoramatv.com

Adorama Pix
The source for the finest quality digital prints, photobooks and more:
adoramapix.com

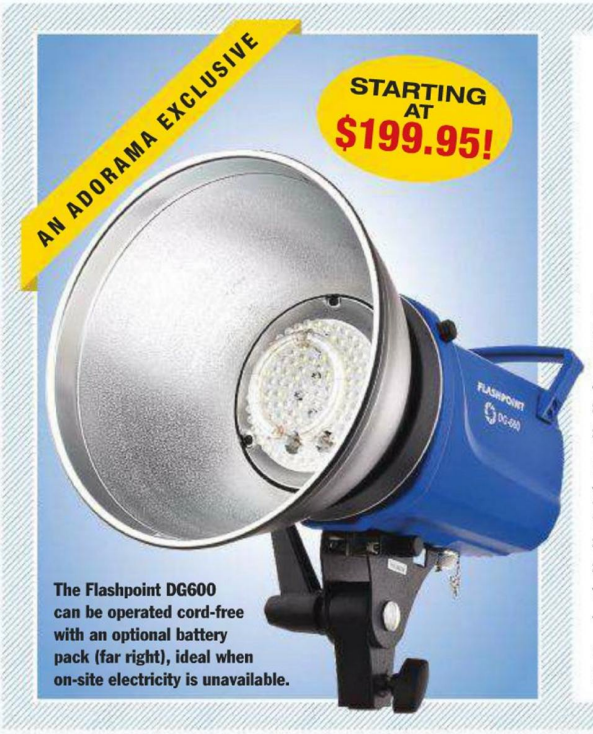
Used & Trade
Paying top dollar for your used equipment, get an instant online quote at:
adorama.com/sell

Learning Center
Video tutorials, how-to's, interviews and reviews for photographers of all levels:
adorama.com/ALC

ADORAMA
MORE THAN A CAMERA STORE

adorama.com
42 West 18th St.
New York City, 10011
800.223.2500

Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com



The Flashpoint DG600 can be operated cord-free with an optional battery pack (far right), ideal when on-site electricity is unavailable.

FLASHPOINT DG600 DIGITAL AC/DC MONOLIGHT

LIGHTEN UP LOCATION LIGHTING!

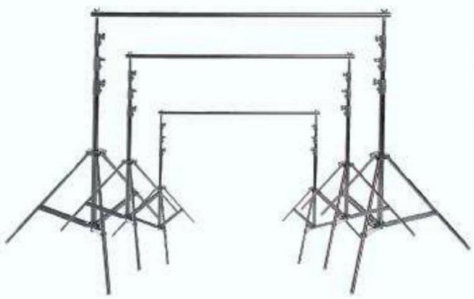
Bringing lights on location greatly expands a photographer's creative options, but their weight and bulk makes getting them there a struggle. Lessen your load with Adorama's new FLASHPOINT DG600 AC/DC Digital Monolight. It combines power source, controls, and flash head in a single unit—yet weighs just a few pounds and is *half* the size of comparable monolights.

Despite its compactness, our new strobe packs the power you need, with a pair of units steplessly delivering up to 600 watt-seconds of consistent 5600K light. What's more, a recycle time as fast as half a second and a flash duration as short as 1/1500 second mean you can shoot fast and with little risk of ghosting.

The FLASHPOINT DG600's big digital display makes settings easy to read, and its sturdy, fan-cooled housing features a secure, rubberized surface. Why pay more?

FLASHPOINT Easy-Shoot Solutions

Background Support System



The background stand comes with interlocking 4 section crossbar. and a handy carrying bag with compartments.

The top of the stand meets the crossbar there is a screw and wing nut to keep the crossbars secured to the stands.

Portable Stand	10' Stand	13' Stand
FPBS13B	FPBS10	FPBS13
$64.95	$99.95	$149.95

"Q" Series Light Modifier Kit

$129.95

For shoe-mount strobes, great for on-location photography or work in a small studio. Includes a Beauty Dish Reflector, Snoot, Diffuser Dome, and accessory pack. Each also available for purchase seperately,

Speedlight To Bowens Adapter

$24.95

Allows you to use your flash with Bowens light modifiers, Beauty dish & softboxes, Sold Separately

16" x 16" Deshadow Box

$29.95

Portable still life studio-in-a-bag with 16" x 16" soft light box, halogen lamps, blue background sweep, a custom carrier and camera stand. An easy on-the-go lighting solution

5-in-1 Collapsible Disc Reflector

STARTING AT $16.95

Translucent, white, black silver and gold surfaces. Perfect for reducing contrast, warming skin tones, eliminating shadows or just softening light. Can be held by hand or light stand. Available in three sizes

SAME DAY SHIPPING on orders placed till 7:00pm on Mon-Thur, Friday on orders placed till 1:00pm for all in-stock items. **FREE SHIPPING** on thousands of items! Plus, Adorama protects you more than ever with our **30-DAY MONEY BACK** guarantee! Shop with confidence and rest assured. For complete details, call 800.223.2500 or visit adorama.com

Store Hours
Sunday 9:30am - 5:00pm
Mon-Th 9:00am - 8:00pm
Friday 9:00am - 5:00pm
Saturday Closed

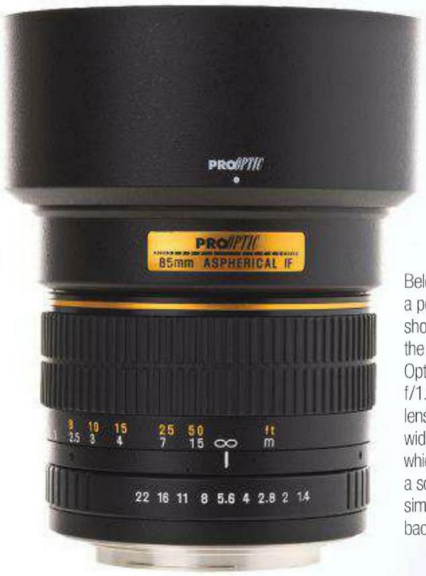
BBB ACCREDITED BUSINESS

LENS REPORT

GLASS ACT

PRO OPTIC 85mm f/1.4 ASPH

If you think you can't afford the fast optics needed for soft portrait backgrounds, this lens will change your mind. By Marvin Good



Below, a portrait shot with the Pro Optic 85mm f/1.4 ASPH lens set wide-open, which created a soft, simplified background

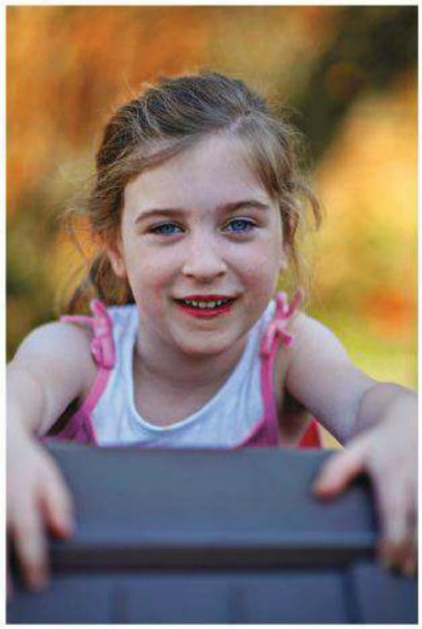
Who doesn't love the soft, out-of-focus background in a great head-and-shoulders portrait? The shallow depth of field needed to create the effect dramatically isolates subjects from their environment, blurring distant detail to make it less distracting.

Yet soft backgrounds come at a price, literally. "Portrait" lenses —moderate telephotos with wide maximum apertures—are expensive because their glass elements must be wider too. It's tempting to splurge, because with an all-purpose zoom set to moderate-tele, the maximum aperture is too small to smooth out the background.

Now budget-conscious photographers can have it both ways. The Pro Optic 85mm f/1.4 ASPH is a high-quality portrait lens that produces a soft, creamy defocus, yet costs a fraction of your DSLR system's equivalent. This fast prime lens has a nine-element optical formula that incorporates state-of-the-art aspheric design.

The Pro Optic's cost is also kept reasonable by eliminating autofocus. Is that a drawback? Not for the close portraits this lens excels at. Many photographers actually turn off their AF system to keep the focus point from shifting every time they take another shot. Manual focus means that once focus is set, you can concentrate on the subject's expression.

Photographers who've bought this well-built lens give it high marks. "Nice bokeh," says one, referring to the smooth quality of its out-of-focus backgrounds. "It feels like a much higher-priced lens," writes a reviewer at *Adorama.com*. "I've compared it to to many other name-brand lenses, and the difference in optical quality is nil." Indeed, the Pro Optic 85mm f/1.4 ASPH stays sharp where you need it to be—on your subject's features—even when you set it wide-open, to f/1.4.



The lens's 85mm focal length delivers flattering perspective when you're shooting up close and personal, with no bulging noses or big foreheads. And while it "covers" full-frame DSLRs such as the Canon EOS 5D or Nikon D700, it can also be used on smaller-sensor DSLRs such as the Nikon D5100 or Canon EOS Rebel—yielding effective, portrait-perfect focal lengths ranging from 110mm to 146mm. ■

The Pro Optic 85mm f/1.4 ASPH is available exclusively from ADORAMA, starting at $279. To order, visit the Adorama store, *Adorama.com*, or call (800) 223-2500.

SCAN TO GET YOURS TODAY

CONTINUED FROM PAGE 59

but it was nothing more than a hobby that I followed every once in a while," he says. In 2006, though, "a friend who has a helicopter called me. He wanted to take the helicopter from his home in Switzerland to a farm in South Africa... He asked me whether I wanted to come along. I didn't think about that for too long, obviously. And before I knew it we were on an eight-week flight from Hamburg to Capetown—over 17,000 miles."

That adventure led to a book, *Eyes Over Africa* (teNeues, 2007), and an association with Wilderness Safaris, which provided him further access to aerial shooting. He has since published eight books, six of them on Africa alone. African lakes are a particularly favorite aerial subject; the one of Lake Borogia on page 59 was taken from a helicopter with a hired pilot. "African lakes can change their dimensions from a few miles to 20 or 30 miles in a few days, just because it's raining."

Looking for a commercial camera-plane pilot to hire for an aerial photo shoot? A colleague at our sister magazine *Flying* suggests that you find a flight-instruction school in your area and inquire there.

Flight Planning

Of the three, Jim Wark is definitely the traditionalist; he shoots from a small fixed-wing craft that he pilots himself. "It's much easier to do the photography that way," he says. "And most of the photography I do is done in the boondocks."

He also refuses to use a camera strap on his handheld cameras. "Straps are too restrictive for camera and aircraft handling," he explains. "In 24 years and 8,000 hours of flying and shooting, I have never come close to dropping a camera. My Husky has custom pockets alongside the seat for easy and safe camera access."

And while he uses digital rigs exclusively for commercial assignments, he shoots film for stock and art photos—on a rangefinder. "I like the Leica; it's much easier to use than a larger camera," he says. "To me, when you develop that film and handle that transparency or negative, it's more like a real artifact of a moment in time."

Both Jason Hawkes and Michael Poliza employ hired helicopters. "A helicopter obviously has some advantages—you can position yourself really easily if you have a great pilot, but it's also noisy and expensive," Poliza says.

Because he finds standard restraint straps too restrictive of his movement, Poliza wears a climbing harness connected by straps to structural parts of the copter. "So in case I do fall out, I won't fall too far," he says.

Hawkes, who often shoots at relatively slow shutter speeds, attaches his camera to a stabilization mount that's bolted to the floor inside the aircraft. He then can fire the camera with no hands, via a remote release cord.

Other than that, none of the three shooters uses any specialized equipment, and they carry minimal amounts of gear. The two copter shooters usually make do with two lenses apiece—Hawkes, a 14–24mm and 70–200mm; Poliza, a 24–70mm and 70–200mm. Since Jim Wark uses prime lenses only, he brings along a few more, ranging from 28mm to 180mm.

Can't Open a Window?

TIPS FOR SHOOTING FROM YOUR AIRLINER SEAT

KENNETH MITCHELL could have been speaking for most of us when he was asked if he often takes shots from airplane window seats: "Yes I do. I can't help myself."

We've assembled some tips for better in-flight photos from *Popular Photography* editors who can't help shooting out that window. First, if you can, book a window seat near the front of the plane for a view unobstructed by the wing. Seats behind the wing are less desirable, as engine exhaust can distort and blur images. The most interesting views happen right after takeoff and shortly before landing, so stop fumbling in the overhead and get your camera ready to shoot before the plane starts rolling. Attach a lens hood to deal with reflections on the window. But resist the urge to press the hood right up against the window, as this will transmit vibrations to the camera—get as close as you can without touching it. You can try using your hand or one of those mini-blankets to block off reflections. Don't use a polarizer, as these can produce weird color banding in the windows—unless you want that effect.

If the window is scratched or smudged, it may flummox autofocus, so be ready to switch to manual focus. Keep the camera to your eye and be ready for when the plane banks, which will give you a better view of the ground.

Mitchell followed most of these rules as his flight took off from Dulles Airport in Washington DC. The Clermont, FL-based pro photographer (kenmphotography.zenfolio.com) decided on a superwide-angle lens, 10.5mm f/2.8G AF-Nikkor Fisheye DX, to get as much of the outside view as possible. The 180-degree view of the lens took in the window edge, which acts as a framing element. "The frame gave the picture more depth and told a story," says Mitchell. The exposure, made with a Nikon D200, was 1/250 sec at f/8, ISO 100.

KENNETH MITCHELL

Advice to Newcomers

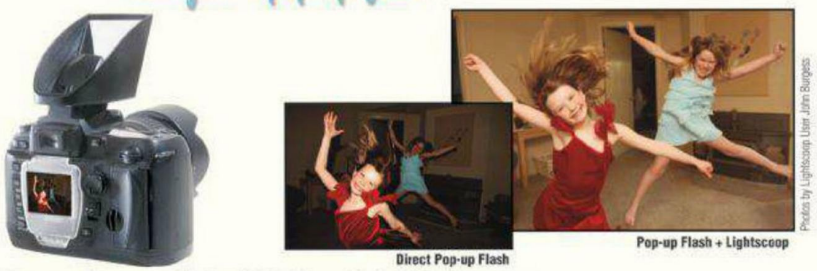
For quality photography from the air, you must shoot through an open door or window. Our three aces agree that helicopters are (except for commercial assignments) prohibitively expensive to hire. Two-seat light sport aircraft are, for the most part, not legally for hire.

That leaves small, conventional, fixed-wing aircraft. Jim Wark notes that a pilot hired for aerial photography must, by FAA rule, hold a commercial license. "It's best that you can have a window that opens, even just a small one, and that you have a pilot who has worked with aerial photographers and understands that he needs to slow the airplane down and so on," he advises. "Any good prosumer camera will produce excellent results. I would not advocate film—it's just not viable anymore."

For more information on our three shooters—and lots of great photographs—visit their websites: airphotona.com (Jim Wark); michaelpoliza.com; and jasonhawkes.com.

ADORAMA
MORE THAN A CAMERA STORE
Adorama's Un-Beatable Service
CLICK BY 6 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM
MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

Even light with your pop-up flash



Bounce the pop-up flash with Professor Kobré's Lightscoop® to produce natural lighting with these DSLR cameras:
Canon 10D, 20D, 30D, 40D, 50D, 60D, 70D **Canon** Rebel XTi, T2i, 400/450, 500/550, XT, XS, Xsi, 350, 1000D **Nikon** D40, D40x, D50, D60, D70, D70s, D80, D90, D100, D200, D300, D700, D3000, D3100, D5000; **Olympus** E3, E420, , 620, E520; **Pentax** K-7, K-X, K10D, K20D, K100D, K200D; **Sigma** SD14 series; **Fuji** FinePix Pro S series; **Sony** a200, a250, a300, a330, a380, a500, a550, a700

Just $29.99
Professor Kobré's light scoop
David Pogue, New York Times "Incredible!"
Standard Lightscoop shown. Warming version also available. Learn more at Lightscoop.com
US Pat. D605,217 S & Other Patents Pending.

Binoculars

SWAROVSKI
EL Series
10x42 EL, waterproof prism binocular w/6.3° angle of view, in green

ZEISS
FL Victory
10x42 T* waterproof Abbe-Koenig roof prism binocular w/6.3° angle of view, USA

Nikon
Monarch
8x42 waterproof & rubber armoured roof prism binocular, USA

VANGUARD
8.5 x 45 Endeaver ED Series
Waterproof & Fog Proof BaK4 Roof Prism Binocular

Adorama Pix
The source for the finest quality digital prints, photobooks and more:
adoramapix.com

=$ Used & Trade
Paying top dollar for your used equipment, get an instant online quote at:
adorama.com/sell

Learning Center
Video tutorials, how-to's, interviews and reviews for photographers of all levels:
adorama.com/ALC

ADORAMA
MORE THAN A CAMERA STORE
adorama.com 800.223.2500

Archive Slide Pages

Archival Pages
Exclusive thin backing coupled with high clarity provides excellent resolution when proofing without removing negatives from the preserver. Hanging File System designed specifically for hanging photographic records in standard file drawers or file boxes

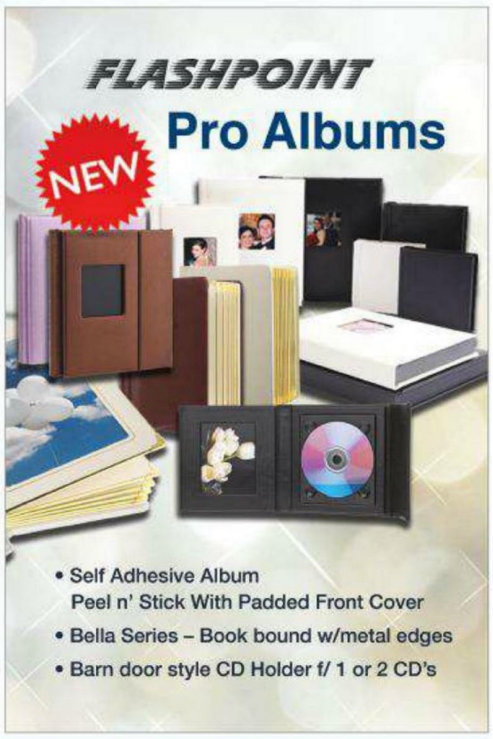
Print File
STARTING AT
$6.95

Archive Storage

Storage Boxes
We Carry A Large Selection Of: Archival Storage Boxes, Posters/ Print Protection, Shipping Tubes

Get The Lowest Prices At Adorama.Com

FLASHPOINT
STARTING AT
$6.95


FLASHPOINT
Pro Albums
NEW
• Self Adhesive Album
Peel n' Stick With Padded Front Cover
• Bella Series – Book bound w/metal edges
• Barn door style CD Holder f/ 1 or 2 CD's

Store Hours
Sunday 9:30am - 5:00pm
Mon-Th 9:00am - 8:00pm
Friday 9:00am - 2:00pm
Saturday Closed

BBB ACCREDITED BUSINESS

10 RULES TO BREAK

CONTINUED FROM PAGE 61

6 Turn off image stabilization when shooting on a tripod.

BREAK IT: For wildlife, mounting the camera to an unlocked tripod head allows for quick repositioning whenever the subject moves, and IS can mitigate the shake that comes with this or with wind. Shooting landscapes with long exposures? Many current IS lenses, notably Canons and Nikons, have tripod detection that can compensate for mirror slap. But many lenses, and cameras with sensor-shift IS, lack this feature, and on these you should definitely turn off IS—the IS may actually induce vibration. Consult the manual to be sure.

IAN PLANT

the best approach in some cases, directional light can create wonderful nature photos: Sidelighting reveals important texture and detail in the landscape while giving the image a sense of depth and dimensionality; backlighting lends drama to wildlife shots, creating glowing rim light and bold silhouettes. Working with directional light can be tricky, and flare is often a challenge—use a lenshood or a well-placed hand for shade.

7 Set your aperture to f/8 or f/11.

BREAK IT: Most lenses perform at their best, in terms of resolution, somewhere in the middle of the aperture range. That doesn't mean you should always choose these settings, though we see people doing so all the time. Sure, you should try to avoid diffraction—image degradation caused by using very small apertures—but not at the expense of the required depth-of-field. Your landscapes will suffer far more from too shallow a zone of sharpness than they will from diffraction. If your composition requires you to shoot at f/16 or even f/22 to ensure sharp focus from near to far, by all means do so.

8 F/22 and be there.

BREAK IT: The flip side of the previous rule, this one is simple laziness that has evolved into accepted wisdom for landscape scenes in order to get maximum depth of field. But because of the aforementioned diffraction, your image quality will not be as good as it would have been had you used, say, f/13. Using a smaller aperture also requires a longer shutter speed—or a higher ISO—than you might need.

OSPREY, SMITH ISLAND, MD
Image stabilization can steady shots with the camera on or off a tripod. Canon EOS-1D Mark III with 100–400mm f/4.5–5.6L Canon EF IS was used; 1/1250 sec at f/5.6, ISO 400.

9 Prime lenses are better than zooms.

BREAK IT: Twenty years ago, this would have been true. The variation in optical quality between prime and zoom lenses back then did justify carrying a large assortment of primes, dwarfing the inconvenience. But now the quality differences are much less—and in some cases nil—while a zoom's convenience, versatility, and portability often far outweigh any perceived image degradation. For some specialized applications, such as wildlife, serious shooters will still prefer the superior optics and wider apertures of certain prime lenses—especially macros and long telephotos—but for the vast majority of uses, zooms are just fine.

10 You can always fix your photo later.

BREAK IT: Despite the powerful temptation to improve an image with Adobe Photoshop or other image editor, you're still much better off getting as much of it right in the camera as possible. Crop later? Better to crop it now, in the camera, and not throw away those pixels unnecessarily. While you should leave some decisions (e.g., setting white balance) to the processing stage, many fixes, such as brightening a significantly underexposed image, can reduce picture quality. As much as editing is a part of the craft of photography, skill with the camera remains your most important tool

Ian Plant is a full-time professional nature photographer and writer. See his work at ianplant.com. Richard Bernabe is a leading outdoor photographer in the southeastern U.S. See more of his photos at richardbernabe.com.

ADORAMA
MORE THAN A CAMERA STORE
Adorama's Un-Beatable Service
CLICK BY 6/7 IT SHIPS
SAME DAY SHIPPING
ON ORDERS PLACED BY 7PM
MON-THU, FRIDAY BY 1PM EST
for details visit adorama.com

FREE EDUCATION
FOR PHOTOGRAPHERS

WATCH. LEARN. CREATE.
VISIT US AT ADORAMATV.COM, ADORAMA.COM/ALC
OR THE iTUNES STORE.

ADORAMA tv
adoramatv.com | adorama.com/alc | adorama learning center
SNAP IT. SAVE IT. SHARE IT. SHOW IT.
VISIT OUR STORE
42 W 18 ST [5+6 AV] NYC
800-223-2500
ADORAMA.COM

SAME DAY SHIPPING on orders placed till 7:00pm on Mon-Thur, Friday on orders placed till 1:00pm for all in-stock items. FREE SHIPPING on thousands of items! Plus, Adorama protects you more than ever with our 30-DAY MONEY BACK guarantee! Shop with confidence and rest assured. For complete details, call 800.223.2500 or visit adorama.com
BBB ACCREDITED BUSINESS

Guard's Life

Greg Miller captures a cross-cultural exchange

I WAS PHOTOGRAPHING two young Bulgarian women working summer jobs in Ocean City, MD, for *The Washington Post Magazine*. Combining two disconnected-seeming worlds is one of my favorite things—I wanted to capture the cultural differences of Eastern Europeans working among people in the U.S.

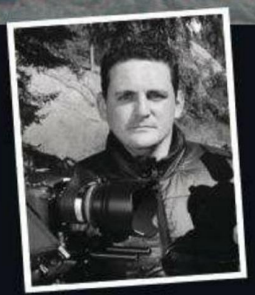
Radi Tsenova had a job as a lifeguard at a condominium, while her best friend, Nadia, worked as a housekeeper, cleaning toilets in a hotel. I shadowed them for a week, at work or shopping or hanging out with friends. I'd been following Radi's routine when these two condo residents showed up at the pool, at their usual time.

I shot with an 8x10 field camera, which often surprises people, but which I love for the way the optics seem to suspend the world. Radi and Nadia just seemed to accept it as something new, another unfamiliar thing in an unfamiliar place. ***—As told to Lori Fredrickson***

GREG MILLER, GREGMILLER.COM

Never miss... the moment.

© Lucas Gilman



Lucas Gilman
SanDisk Extreme® Team

"When you travel half way around the world for the perfect wave, I trust only SanDisk Extreme Pro® Cards to get the shot. There is no take-two no second chance."

SANDISK EXTREME PRO® MEMORY CARDS

Get our fastest SDHC™/SDXC™ and CompactFlash® memory cards for blazing fast shot and transfer speeds. SanDisk Extreme Pro cards are dependable and have been engineered to exceed rigorous performance and durability standards. That's why for memories that can't be missed, photographers worldwide choose SanDisk.

Available in 8 GB, 16 GB, 32 GB, 64 GB and 128 GB† capacities
Learn why more professional photographers trust SanDisk at sandisk.com

SanDisk®
STORE YOUR WORLD IN OURS®

* Up to 90 MB/s read/write speed. Based on internal testing; performance may be lower depending upon host device. 1 megabyte (MB) = 1 million bytes. † 1 gigabyte (GB) = 1 billion bytes. Some capacity not available for data storage. Available capacities vary by product line. SanDisk, the SanDisk logo, Store Your World In Ours, CompactFlash, SanDisk Extreme and SanDisk Extreme Pro are trademarks of SanDisk Corporation, registered in the U.S. and other countries. The SDHC and SDXC marks and logos are trademarks of SD-3C, LLC. Other brand names are for identification purposes only and may be the trademarks of their respective holders. © 2012 SanDisk Corporation. All rights reserved.

Samsung
SMART CAMERA

OUR BEST SMART CAMERA.
UPGRADED AND DOWNSIZED.

Wi Fi
CERTIFIED

create wonder

Introducing the remarkably compact NX20 Samsung Smart Camera. Designed to deliver stunning 20.3 megapixel images, it features a top shutter speed of 1/8000th second, and built-in WiFi® to upload directly to Facebook, Picasa, YouTube and Photobucket. The NX20. It's shifting the boundaries between compact and professional cameras. Experience it now at ***samsung.com/nxsystem***.

ADORAMA · B&H · BEACH CAMERA · BEST BUY · ELECTRONICS expo · Fry's · onecall · TigerDirect.com

BestBuy.com only

SAMSUNG

©2012 Samsung Electronics America, Inc. All rights reserved. Samsung is a registered trademark of Samsung Electronics Co., Ltd.
All products and brand names are trademarks or registered trademarks of their respective companies. Screen images simulated.